

MACHINE TOOLS

**walker-
Turner**

COMPANY, Inc.
PLAINFIELD, N.J.
U.S.A.

FOR INDUSTRY

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NOTE: Prices shown in this catalog or on separate price list do not apply to parts omitted from standard machines. Under certain circumstances, if it is necessary to order machines less standard parts, a deduction of 50% only on parts prices will be allowed.

Machines, accessories and parts are sold as listed in this catalog. No substitution or interchange of parts or accessories will be made at the factory.

All prices are F.O.B. Plainfield, N. J., unless otherwise noted, and subject to change without notice. Slightly higher at distant points for transportation. Also subject to local, state or federal sales tax wherever such taxes are in force. The Walker-Turner Company reserves the right to make changes in design, or additions or improvements in its products without imposing any obligation upon itself to install them.

WALKER-TURNER MACHINE TOOLS

FOR

METALS, WOOD AND PLASTICS

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WALKER-TURNER 20" DRILL PRESSES

POWER FEED HAND FEED



D-1100F

The Walker-Turner 20" Drill Presses are available in 12 models; each one is clearly described in detail below.

Power Feed models are supplied with a compact and smooth operating feed unit. They are powered from the drill spindle and operate through a multiple disc clutch. Cast-iron and steel gears, bronze bushings and ball thrust bearings are a few of many features found in this unit.

- D-1100 FLOOR MODEL—HAND FEED**—including table raising mechanism and belt guard but less motor
- D-1100B BENCH MODEL—HAND FEED**—including head raising mechanism and belt guard but less motor
- D-1100F FLOOR MODEL—POWER FEED**—including table raising mechanism and belt guard but less motor
- D-1100BF BENCH MODEL—POWER FEED**—including head raising mechanism and belt guard but less motor
- D-1102B BENCH MODEL—2 spindle—hand feed**—on 2 spindle table—including head raising mechanism and belt guard but less motor
- D-1102BF BENCH MODEL—2 spindle—power feed**—mounted on 2 spindle table—including head raising mechanism and belt guard but less motor
- D-1103 3 SPINDLE—HAND FEED**—mounted on 4 spindle table, belt guard and head raising mechanism included
- D-1103F 3 SPINDLE—POWER FEED**—otherwise same as D1103
- D-1104 4 SPINDLE HAND FEED MODEL**—belt guard and head raising mechanism included
- D-1104F 4 SPINDLE MODEL—POWER FEED**—belt guard and head raising mechanism included
- D-1106 SIX SPINDLE MODEL—HAND FEED**—belt guards and head raising mechanisms included, but less motor
- D-1106F SIX SPINDLE MODEL—POWER FEED**—belt guards and head raising mechanisms included but less motors
- 11D-45 CAST IRON LEGS for Multiple Spindle Models** pr. (D-1106 Requires 1½ pr.)
(Not included with machine)
No. 3 Morse Taper Spindle available spec. order No extra charge

Recommended motors—see page 34 for complete specifications and motor dimensions.

MOTORS FOR THE 20" DRILL PRESS

- KAB-10E** 1 H.P., single phase, 110-220 V., 1740 R.P.M., 60 cycle
- PAB-10E** 1 H.P., 3 phase, 220/440 V., 1740 R.P.M., 60 cycle
- PIB-7*** ¾ H.P., 3 phase, 220 V., 865 R.P.M., 60 cycle
- GPOB-10*** 1 H.P., 220/440 V., 3 phase, 380 R.P.M. Geared motor
- POB10E** 1 H.P., 3 phase, 220/440 V., 1140 R.P.M., 60 cycle

(Note: This motor was designed primarily for drilling alloys and should not be used for drills larger than the recommended capacity of the machine ¾" in steel—1" in cast iron.)

*Special motor bracket required.

• PRODUCTION MODELS •

The Walker-Turner 20" Drill Press is the culmination of years of engineering development. Its design is soundly based on practical experience with over a hundred thousand smaller units built for and used by industrial plants manufacturing many different kinds of products.

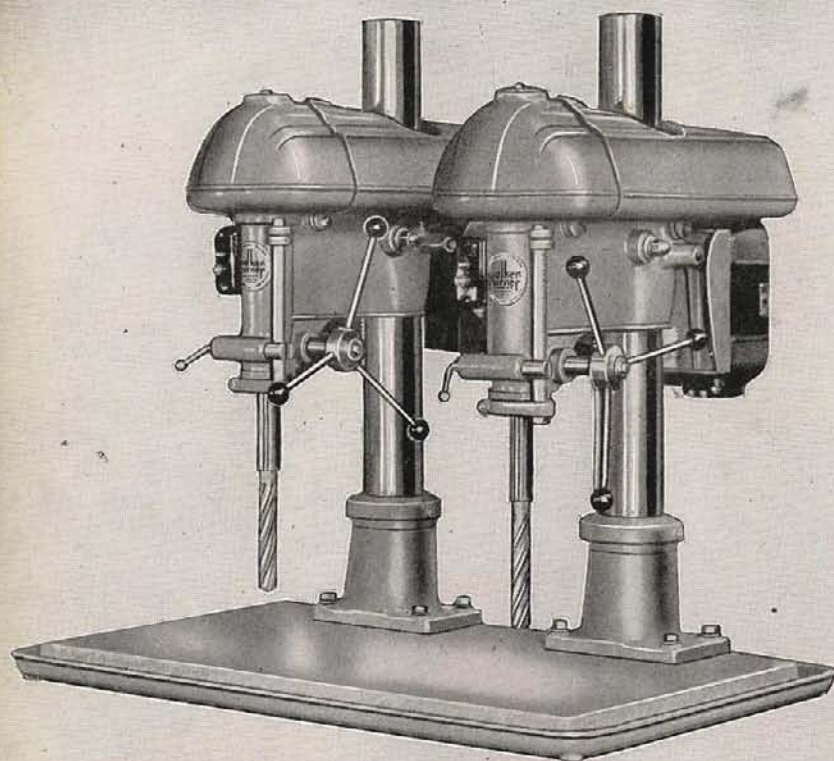
These new 20" models are made primarily for fast production drilling operations. Their unusually wide speed ranges make it practical to drill all varieties of material. They are the largest of the several sizes made by this company.

The high quality of Walker-Turner Drill Presses is due to careful design by engineers who pioneered the principle of weight conservation in machine tools. Compact, yet rugged construction has been made possible by discriminating selection of material. Incorporated in these units are many refinements ordinarily found only in drill presses that sell

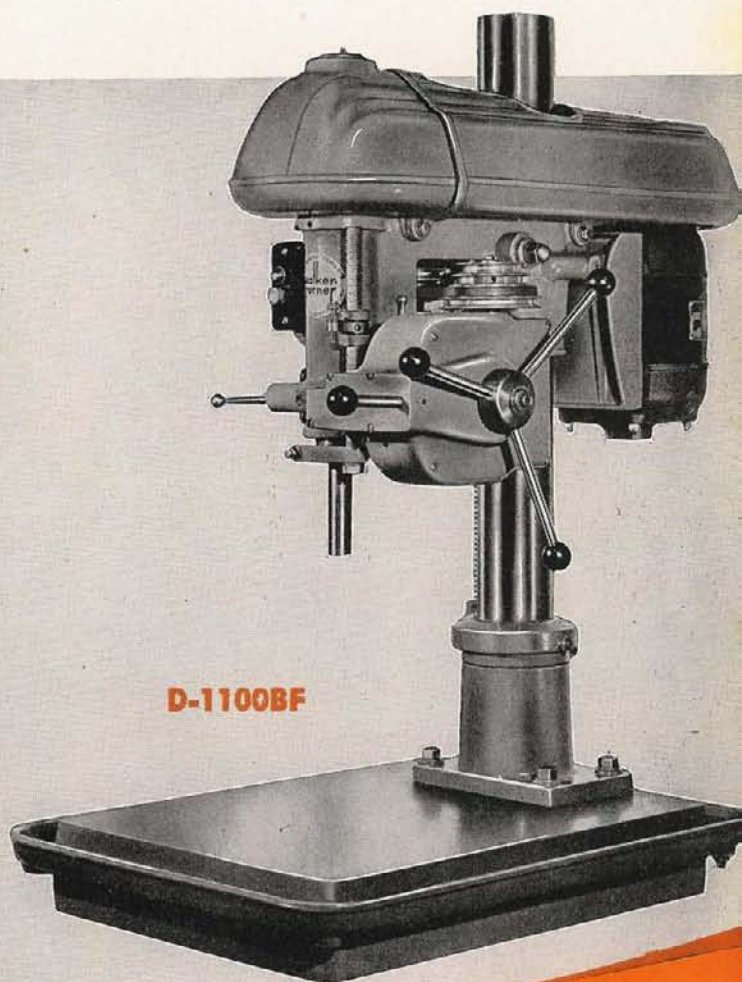
for several times their price. Unusually close tolerances, four ball-bearings, bored in line one-piece solid head castings, spindle pulley mounted between two ball-bearings to eliminate "whip", ten-spline spindles—these are just a few of the features of construction that enable Walker-Turner 20" Drill Presses to do work of greater accuracy than is common to any except the heavier and more expensive machines.

Thoroughly job-tested in large and small plants, they have demonstrated ability to stand up well under the most rigorous production program. Many are operated continuously on 24 hour per day schedules. Their acceptance by industry for the classes of work for which they were designed has been rapid and wide spread.

Illustrated below, at left, Model No. D1102-B at right Model No. D1100BF Power feed.



D-1102B



D-1100BF

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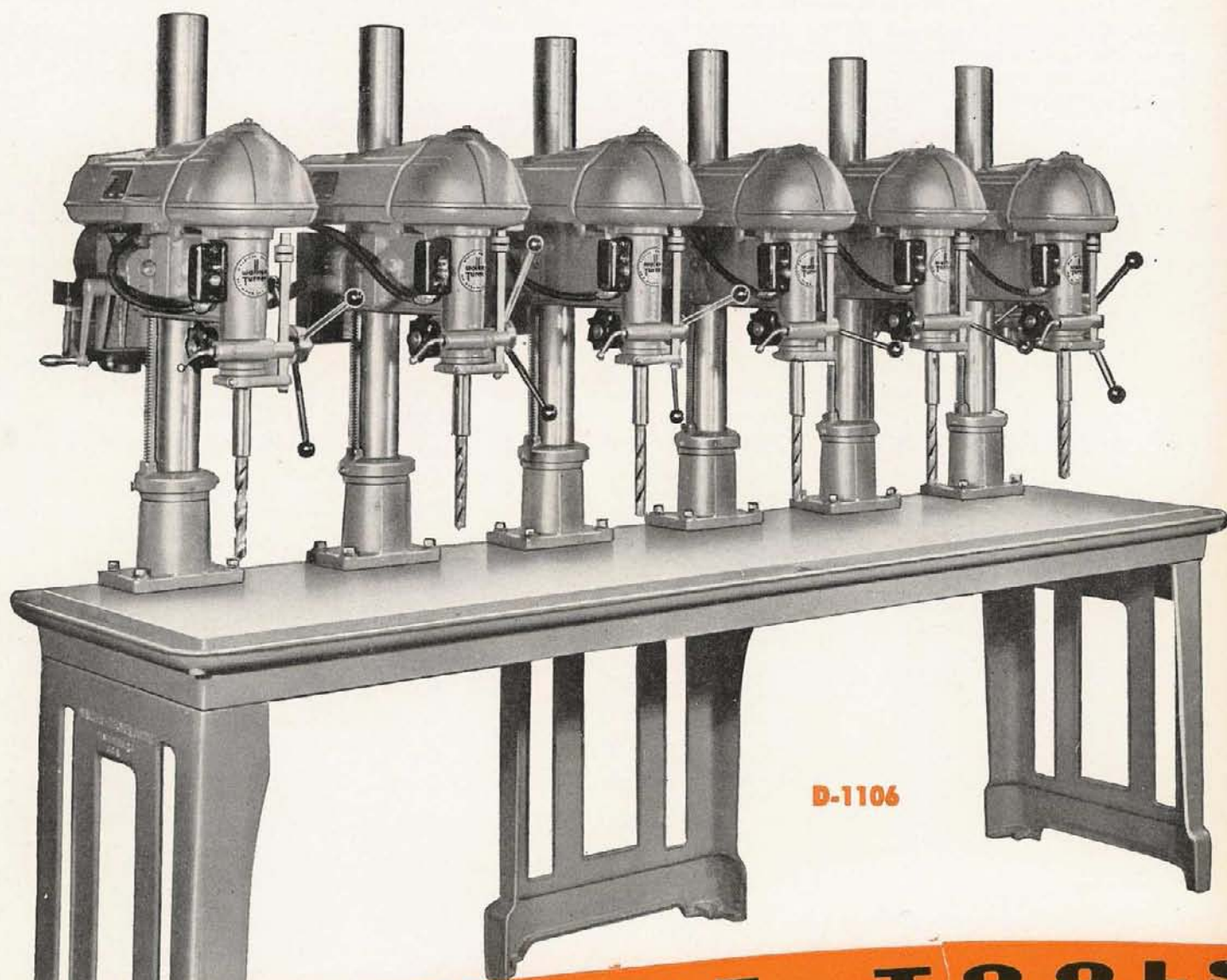
FOUR & SIX SPINDLE MODELS

- POWER FEED
- 1" CAPACITY IN CAST IRON
- 6" SPINDLE TRAVEL
- BALL BEARINGS THROUGHOUT
- BALANCED PULLEYS
- STRAIGHT LINE "V" BELT DRIVE
- NO. 2 M.T. SPINDLE NOSE #3 AVAILABLE—no extra charge
- ONE PIECE HEAD CASTING
- 10 SPLINE SPINDLE

Service tested in hundreds of industrial plants this drill press has set a new standard of value from the standpoint of production, service and first cost. Multiple spindle models—two to six spindles—are particularly effective in increasing production on many jobs where a series of holes are to be drilled, tapped, reamed, or

counter-bored in a single piece. The power feed unit will permit one operator to effectively operate 4 or more spindles. Husky power feed for production drilling or sensitive hand feeding for small drills can be had at the touch of a lever.

THE POWER FEED unit is operated through a multiple disc clutch and has constant mesh worm gear and worm. A power take-off pulley on the drill press spindle operates the unit through a four-speed counter shaft. This makes available feed rates of .003", .006", .009" and .012" per revolution of the spindle. Feed rates are quickly changed, a tension release on the counter shaft belt simplifies making the change. The clutch can be engaged at a touch of a lever at any point of spindle travel, there are no gears to mesh. A micrometric depth gauge releases the feed at any predetermined point and allows the spindle to return to its original position. Model No. D1106, shown below.



D-1106

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HEAD DETAILS 20" DRILL PRESS

CAPACITY in steel is $\frac{3}{4}$ " and 1" cast iron. Distance from spindle to column is 10" permitting drilling to the center of a 20" circle. Table sizes, etc. are listed on page 8. Maximum capacity, spindle nose to table 25" on single and multiple spindle bench models.

STRAIGHT LINE Vee belt drive to drill spindle minimizes power loss, simplifies speed changes and increases belt life.

TEN SPLINE SPINDLE is journaled on two ball-bearings—the lower bearing close to the spindle nose is double row pre-loaded and designed to absorb radial and thrust loads.

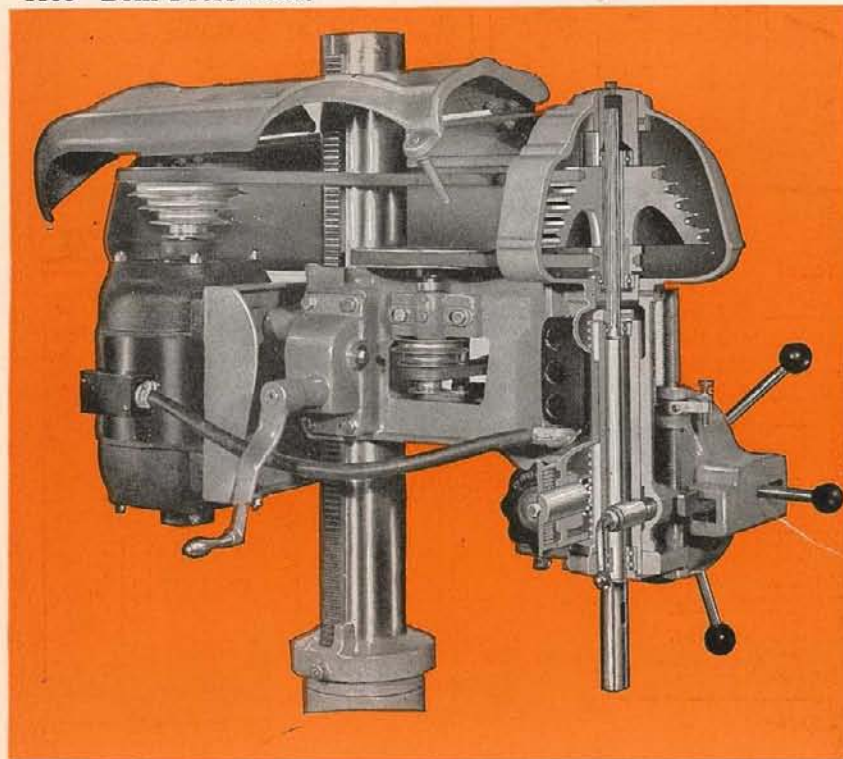
FIVE SPINDLE SPEEDS from 260 to 1740 R.P.M. with an 1140 R.P.M. motor or from 400 to 2600 with a 1740 R.P.M. motor. Balanced pulleys and rugged construction throughout permit spindle speeds in excess of 5000 R.P.M.

TWO BALL BEARINGS on the spindle pulley—one at each end—support it independent of the spindle. Belt strain is completely absorbed by the bearings eliminating spindle friction and distortion.

ONE PIECE HEAD CASTING assures accuracy and parallelism between spindle and column. Wedge type locks prevent distortion of casting. Line boring assures bearing alignment.

RACK AND PINION elevating mechanism can be used on heads of the multi-spindle models or on the table of floor model machines. A Ball-bearing thrust collar carries weight of head when adjustments in height are being made.

ONE POINT LUBRICATION. Pulley and spindle bearings as well as all moving parts of the quill and feed mechanism are lubricated from a single oil hole, conveniently located above the spindle. Power feed unit has ample oil and grease fittings. The illustrations at the right clearly show the details and outstanding features of the "1100" Drill Press head.



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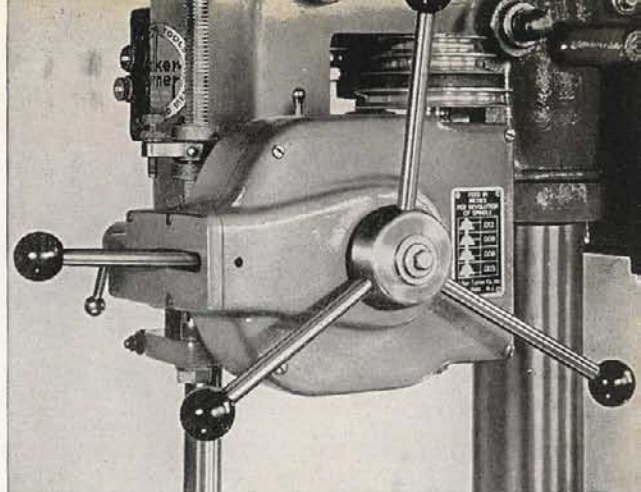
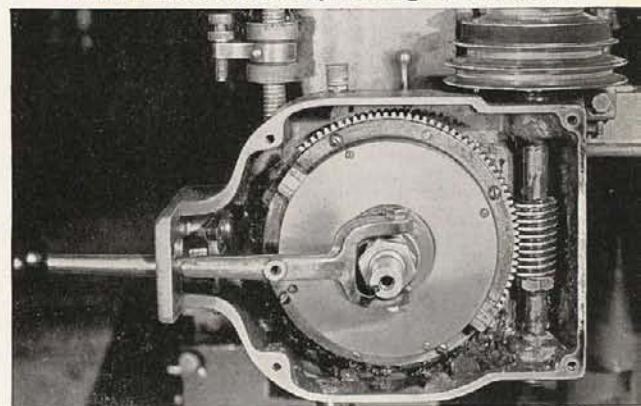
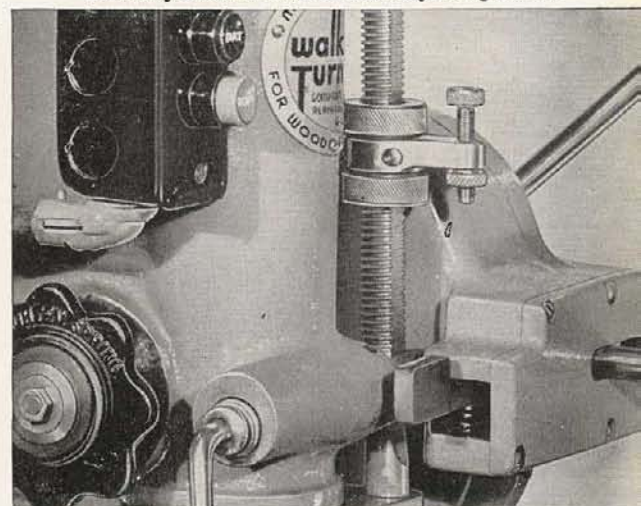


Illustration above shows clutch and worm gear housing.

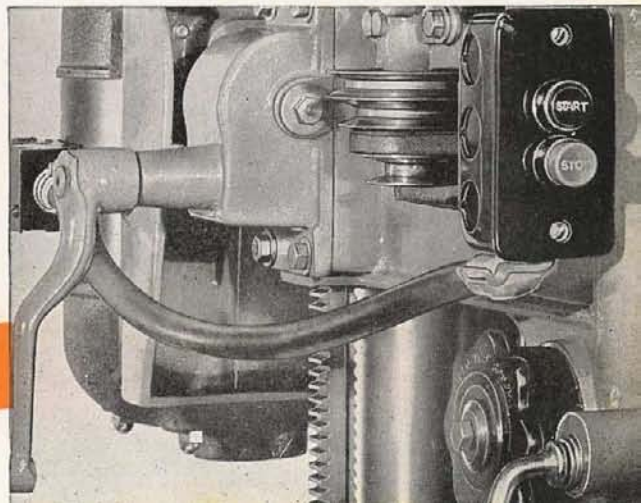
Below: Enclosed clutch, worm gear and worm.

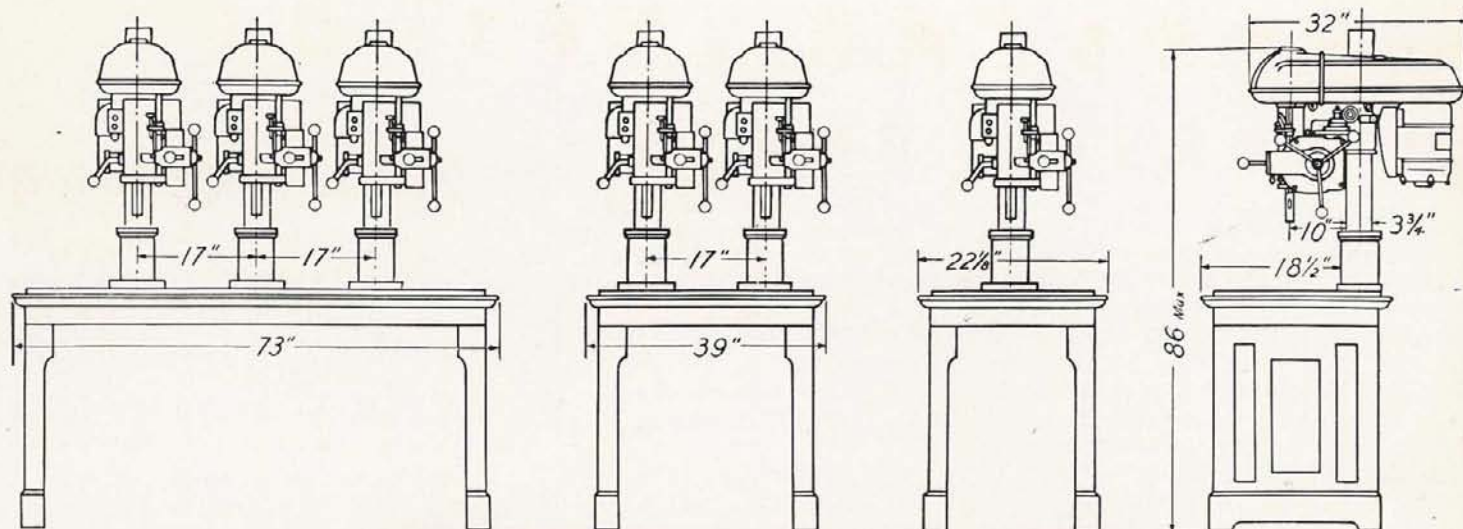


The depth gauge shown below gets micrometer accuracy from the fine thread adjusting screw.

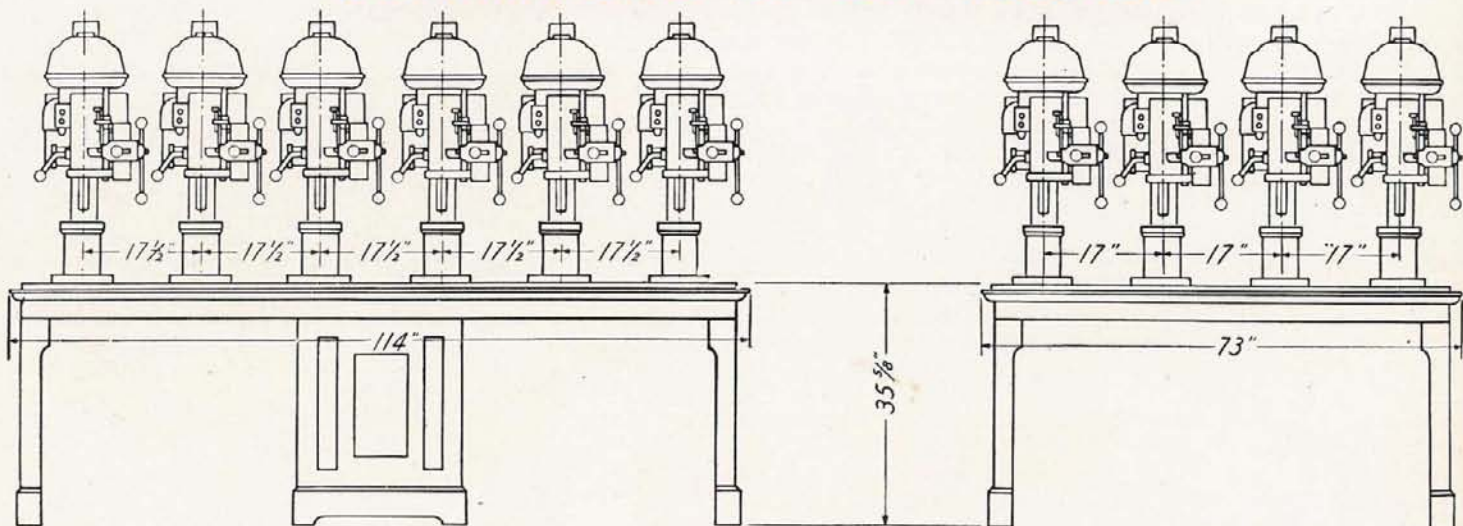


Elevating unit (below)—gears are totally enclosed in a cast-iron housing.



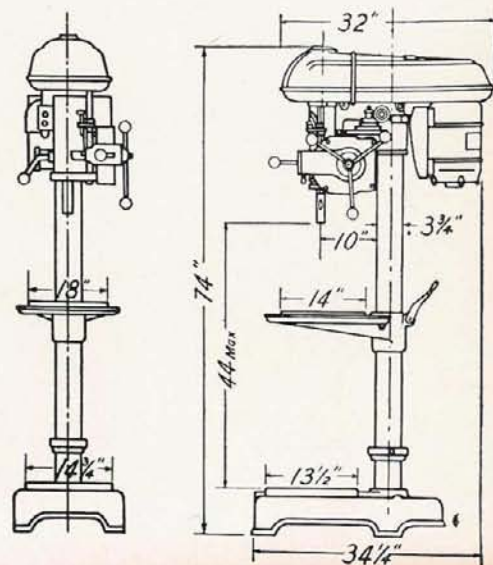


DIMENSIONS OF 20" MODELS



SHIPPING WEIGHTS (Approximate)

D-1100	Floor Model—Hand Feed	500 lbs.
D-1100B	Bench Model—Hand Feed	435 lbs.
D-1100F	Floor Model—Power Feed	565 lbs.
D-1100BF	Bench Model—Power Feed	472 lbs.
D-1102B	2 Spindle Model—Hand Feed	950 lbs.
D-1102BF	2 Spindle Model—Power Feed	1050 lbs.
D-1103	3 Spindle Model—Hand Feed	1515 lbs.
D-1103F	3 Spindle Model—Power Feed	1715 lbs.
D-1104	4 Spindle Model—Hand Feed	1600 lbs.
D-1104F	4 Spindle Model—Power Feed	1775 lbs.
D-1106	6 Spindle Model—Hand Feed	3050 lbs.
D-1106F	6 Spindle Model—Power Feed	3200 lbs.
11D45	Cast Iron Legs	200 lbs.



MACHINE TOOLS
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• SPECIAL SET-UPS •

20" OVERHEAD DRILL PRESS ASSEMBLY

An unusual drill press head installation is shown at the right as used by a leading aircraft builder. A 20" drill press head is mounted on a sliding carriage supported by an "I" beam.

The sliding carriage contacts the "I" beam through eight adjustable ball bearings. These ball bearings provide easy lateral movement and the head swings radially through a complete circle, a ball bearing thrust supports the head on the column.

O. H. D. 1150X OVERHEAD DRILL HEAD ASSEMBLY—Includes 20" Hand Feed Drill Head, Belt guard, column, column carriage and elevating unit.

O. H. D. 1151X OVERHEAD DRILLHEAD ASSEMBLY—Includes 20" Power Feed Drill Head, Belt guard, column, column carriage and elevating unit.

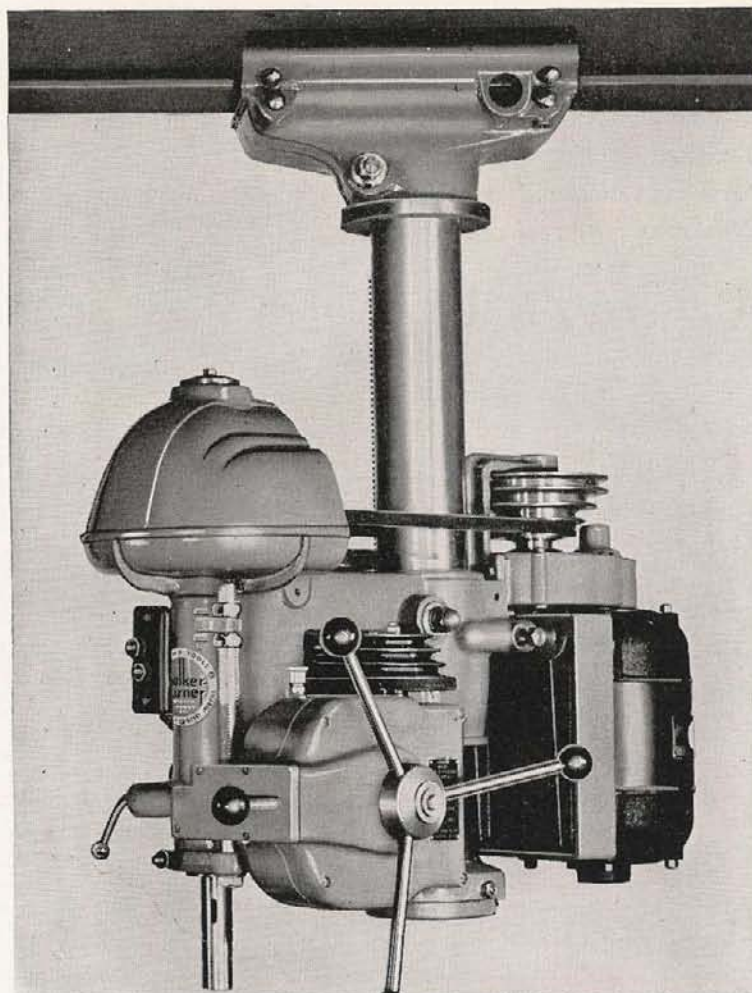
20" DRILL PRESS HEADS

D-1100-X—20" HAND FEED DRILL PRESS HEAD—Head only includes, belt guard, motor base, belt and motor pulley.

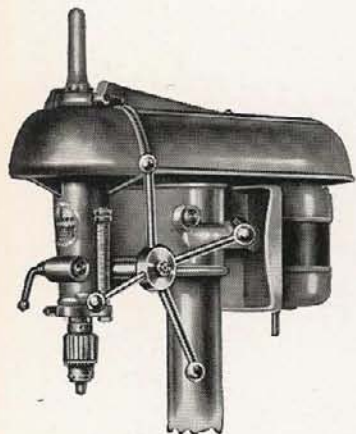
D-1101-X—20" POWER FEED DRILL PRESS HEAD—Head only includes, belt guard, motor base, belt and motor pulley.

GPOB-10—1 H.P. 380 R.P.M. GEARED MOTOR 3 PHASE, 220 volts, 60 cycles.

(Note: This motor is shown on the 20" Drill Press Head above). It was designed primarily for drilling alloys where extremely slow spindle speeds are required. It should not be used to permit the use of drills larger than the recommended capacity of the machine, that is $\frac{3}{4}$ " in steel and 1" in cast iron.



15" DRILL PRESS HEADS



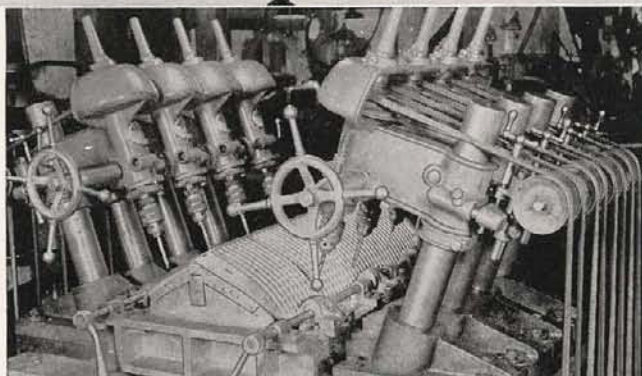
Specifications and illustration of head on page 11—The two illustrations on the right of this page are typical of the possibilities of the 15" Drill Heads.

The special set-ups can be made at a fraction of the cost of conventional set-ups and result in increased production, saving in many cases as much as 70% in labor.

9D13 X 15" HAND FEED DRILL PRESS HEAD—Head only includes motor base, belt and motor pulley

9D11 COLUMN—Ground steel $2\frac{3}{4}$ " x 31"

9D55 BELT GUARD



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15 INCH PRODUCTION MODELS

These production model drill presses are designed to cover the widest range of service at new, low levels of investment and operating costs. The vital parts are machined to closer tolerances than similar parts found in other and higher-priced drill presses. Their sturdy construction permits many other operations besides drilling.

Maximum distance chuck to table, $18\frac{1}{2}$ ".

Maximum distance center of chuck to column, $7\frac{1}{2}$ ".

Center to center of chucks, 11" on 2 and 4 spindle models. 15" on 3 spindle model.

Machined cast-iron table $17" \times 45"$ on 4 and 3 spindle models: $17" \times 23"$ on 2 spindle model: $14\frac{1}{2}" \times 16"$ on 1 spindle model.

Heads on multi-spindle models can be swung to right or left independently of each other.

Overall sizes (without legs): Height 42", depth 29" all models. Width, 4 and 3 spindle models, 50"; 2 spindle model, $27\frac{1}{2}"$; 1 spindle model, 20". Shipping weights, less legs, motors and belt guards: 6 spindle model, 900 lbs.; 4 spindle model, 570 lbs.; 3 spindle model, 470 lbs.; 2 spindle model, 290 lbs.; 1 spindle model, 160 lbs.

D906—SIX SPINDLE DRILL PRESS, less motors and belt guards (Table size $17\frac{1}{2}" \times 67"$)

D904—FOUR SPINDLE DRILL PRESS, as shown, less motors and belt guards.

D903—THREE SPINDLE DRILL PRESS, not illustrated, less motors and belt guards.

D902—TWO SPINDLE DRILL PRESS, as

shown, less motors, belt guards and stand.

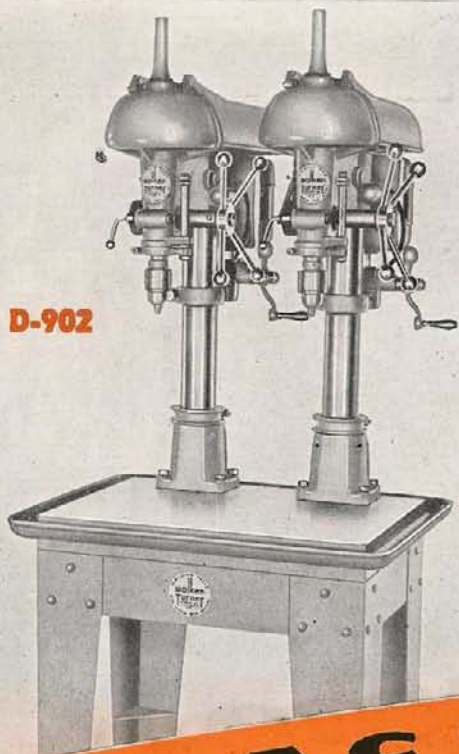
D901—SINGLE SPINDLE DRILL PRESS, less motor, head raising mechanism and belt guard.

D901-H—Same as D901 but with 9D75 head raising mechanism, as shown at right, less belt guard and motor

9D55—BELT GUARD

9D60—CAST-IRON LEGS for multi-spindle models. D906 requires $1\frac{1}{2}$ pr.

(Motors recommended: $\frac{1}{2}$ H.P., 1740 R.P.M.)



MACHINE TOOLS WALKER-

15 INCH BENCH MODELS

New one-piece table with larger working area.
 Straddle-mounted pulley design gives extra rigidity.
 6 spline spindle (pioneered by W-T) minimizes vibration.
 4 precision ball bearings correctly located.
 One-piece head casting closely fitted to column.
 Balanced pulleys.
 Jacobs 0-1/2" key chuck regular equipment.
 Guaranteed accuracy greater than higher-priced machines.
 Experienced shop men find these modern, efficient machines far ahead of the field . . . in design, in accuracy and in value.
 A study of the cutaway section of the head, below, shows why Walker-Turner Drill Presses perform better and last longer. Husky head construction, calibrated depth stop, positive locking device and Jacobs chuck are typical refinements. The column collar which permits swinging the head and belt guard are shown.

SPECIFICATIONS

CAPACITY: chuck to table 12" . . . chuck to base 17 1/2" . . . center of chuck to column 7 1/2", drills to center of 15" circle.

CHUCK: Jacobs key type, 0-1/2" capacity.

TABLE: new one piece type with larger working area 10" x 12 1/2".

BEARINGS: 4 precision ball bearings mounted one above and one below pulley; other two in rack.

BASE: heavy casting with machined surface 10" x 9".

SPINDLE: 6 spline, 5/8" dia. tapered for Jacobs chuck and collets.

SPINDLE TRAVEL: 4 1/4" adjustable spring return.

COLUMN: precision ground, 2 3/4" diameter.

RACK: machined from solid bar steel, 1 1/16" diameter. Teeth milled in rack to match pinion.

PILOT WHEEL FEED: bakelite knobs, calibrated depth stop.

HEAD: close grained gray iron. Parts machined to close tolerances.

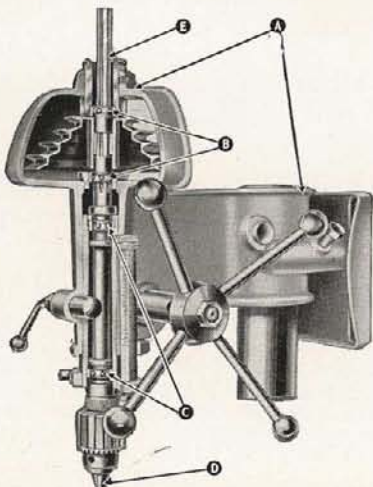
ADAPTER: No. 1 Morse Taper adapter available. (Extra Cost)

STANDARD SPEEDS: with 1740 R.P.M. motor, 600, 1250, 2440, 5000.

SLO-SPEED MODEL SPEEDS: 480, 940, 1300, 2900 R.P.M.

OVERALL MEASUREMENTS: height 39 1/2", width 10", depth 25".

SHIPPING WEIGHT: 133 lbs. without motor

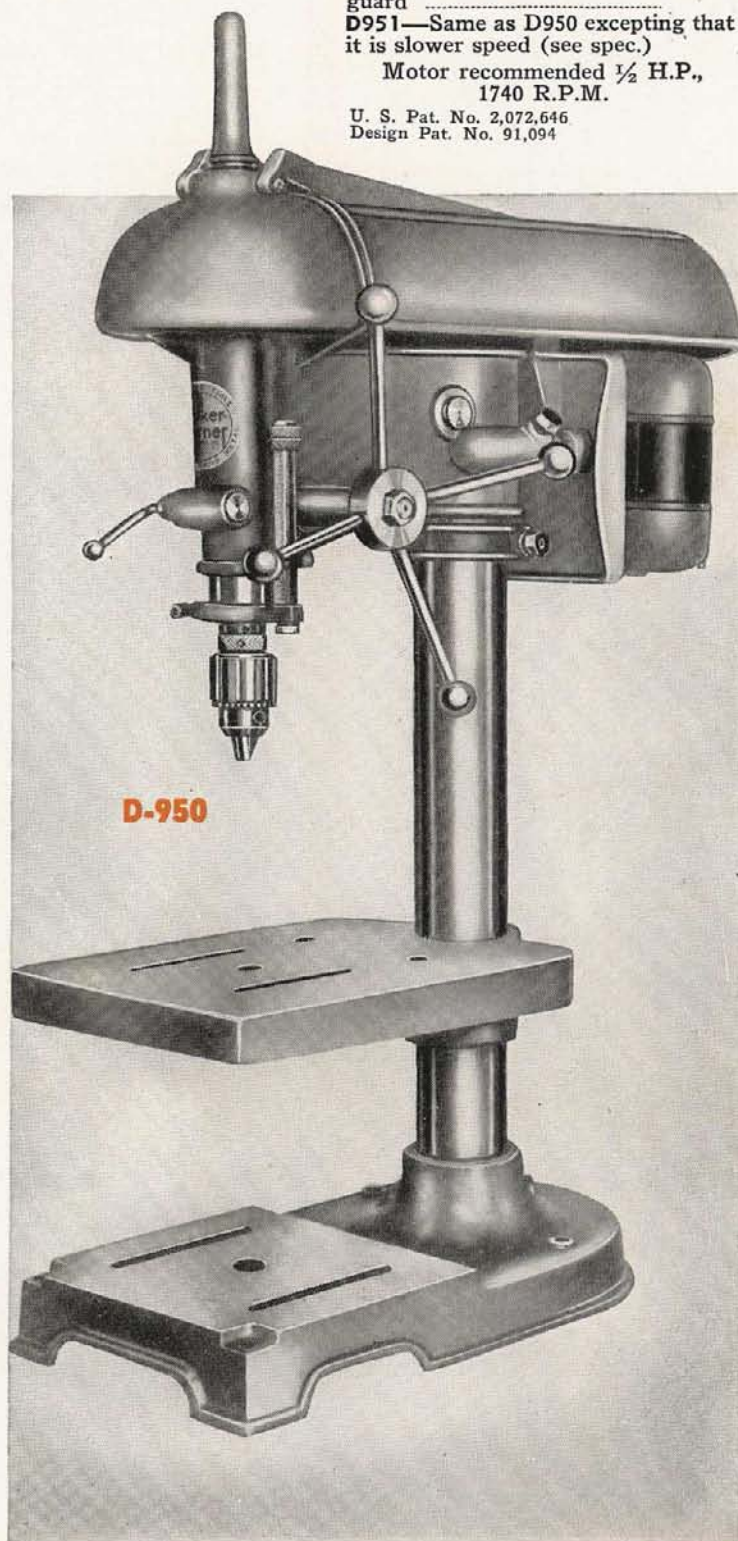


D950—As shown below, standard speeds, includes belt and motor pulley but less motor and belt guard

D951—Same as D950 excepting that it is slower speed (see spec.)

Motor recommended 1/2 H.P.,
 1740 R.P.M.

U. S. Pat. No. 2,072,646
 Design Pat. No. 91,094



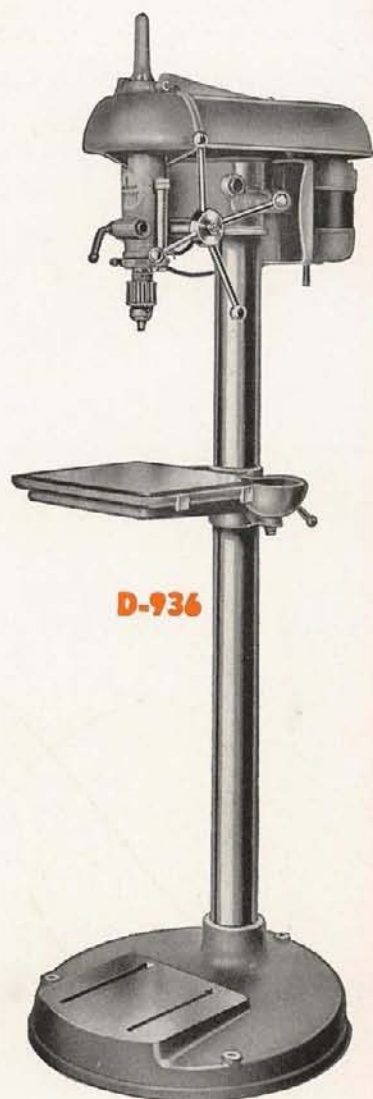
TURNER



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15' FLOOR MODEL DRILL PRESSES



D-936

D935—Floor model with standard table, less belt guard and motor.

D937—Same as D935 but Slo-speed.

9D80N—Foot-feed attachment, fits floor models with $2\frac{3}{4}$ " columns.

Foot-feed floor model drill press: Quill travel by foot pedal is $2\frac{1}{4}$ " capacity.

D936—With belt guard, production table, Standard speed. Less motor (left).

D938—Same as D936 but Slo-speed.

FD961—As shown at right, less motor. Slo-speed extra. Shipping weight without motor: 265 lbs.

Motor recommended, $\frac{1}{2}$ H.P. 1740 R.P.M.

Floor models have the same head assemblies as the bench models. Columns are 60" in length. Head and table may be swung to various positions around column.

Distance chuck to base 46".

Round base affords greater portability.

6 spline spindle, $\frac{1}{4}$ " travel.

Balanced pulleys.



CORRECT BEARING SUPPORT—The straddle-mounted construction of the W-T head with ball-bearings directly above and below the pulley gives proper support to the pulley. The spindle "floats" freely through the pulley with no belt strain transmitted to the spindle.

U. S. Pat. No. 2,072,646. Design Pat. No. 91,094.



FD-961

S P E C I F I C A T I O N S

CAPACITY: Chuck to base 46", center of chuck to column $7\frac{1}{2}$ ", drills to center of 15" circle.

CHUCK: Jacobs key type, $0\frac{1}{2}$ " capacity.

TABLE: new one piece type with larger working area $10" \times 12\frac{1}{2}"$.

BEARINGS: 4 precision ball bearings mounted one above and one below pulley; other two in rack.

BASE: 22" in diameter. Has machined working surface $10" \times 9"$.

SPINDLE: 6 spline, $\frac{5}{8}"$ diameter #33 taper at end for Jacobs chuck.

SPINDLE TRAVEL: $4\frac{1}{4}"$, adjustable spring return.

COLUMN: Precision ground, $2\frac{3}{4}"$ diameter.

RACK: machined from solid bar steel, $1\frac{1}{16}"$ diameter. Teeth milled in rack to match pinion.

PILOT WHEEL FEED: with bakelite knobs, calibrated depth stop.

HEAD: close grained gray iron. Parts machined to close tolerances.

ADAPTER: number 1 Morse Taper adapter available to fit tapered spindle.

STANDARD SPEEDS: with 1740 R.P.M. motor, 600, 1250, 2440, 5000.

SLO-SPEED MODEL SPEEDS: 480, 940, 1300, 2900 R.P.M.

OVERALL MEASUREMENTS: height 69", depth 25"

SHIPPING WEIGHT: Approximately 200 lbs. without motor.

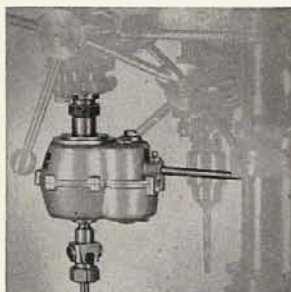
★ ★ ★ **MACHINE TOOLS WALKER-**

DRILL PRESS ATTACHMENTS



9MT1 — Morse Taper adapter including drift pin as shown.

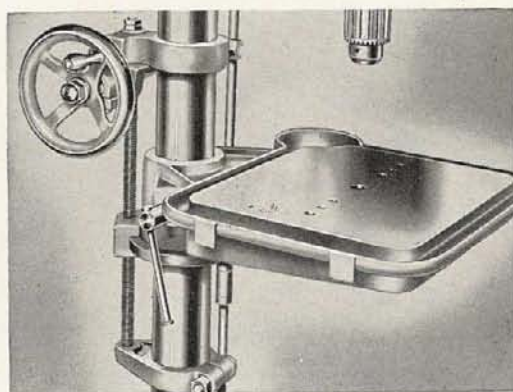
With this adapter attached to any series "900" drill press spindle in place of chuck, No 1 Morse Taper shank drills may be used.



9D65N—Production table.

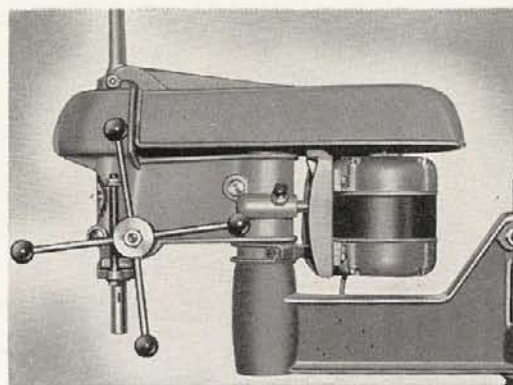
9D66—Table raising mechanism (with hand crank instead of wheel shown).

A production table 12" by 10" is shown with the new table raising and lowering mechanism. They fit any drill press with 2 3/4" diameter column and are very easily attached.



9D6—Extension Arm complete.

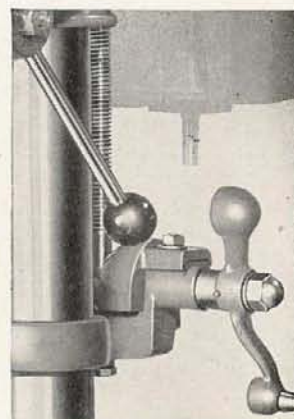
The extension arm increases the distance between the main column and the drill to 24". Intended for light drilling, it is useful for drilling or tapping holes in large sheets, plates and other wood or metal panels. For use on all bench model drill presses with 2 3/4" columns. Swings on accurately fitted bearings and is movable up and down the column.



9D75 — Head raising mechanism (for bench model).

9D76 — Head raising mechanism (for foot feed model).

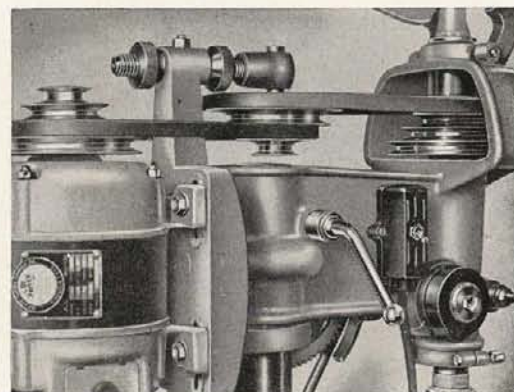
Fits all "900" series drill presses with 2 3/4" columns. Functions with head and column in any position. Positive action, easy to operate. Raising and lowering mechanism movable around column with head assembly.



9D113—Slo-speed attachment, including ball bearing mounted pulley and 2 24" "V" belts.

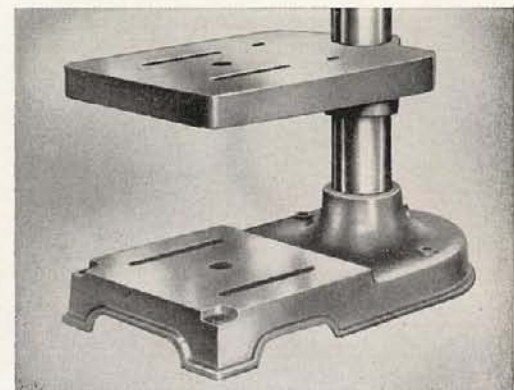
9D111—Motor plate—for older models.

This new drive provides speeds of 165, 365, 385, 785, 800, 1260, 3600, 3700, 6700, 6750 R.P.M. The pulley assembly attaches to the motor base bracket now standard equipment on "900" drill presses except slow speed models. Adjustable belt tension. 9D111 not included. The pulley turns on dust-sealed, precision ball bearings. This attachment may be fitted to the older "900" models if old motor plate is replaced by new type listed above. The photo below shows how the attachment is installed.



9D125 — One-piece Table (fits 2 3/4" diam. cols.).

Supplied as regular equipment on standard bench and floor models is a new sturdy one-piece table with 12 1/2" x 10" machined working surface providing greater usable table area. The table is locked in position on the column by a conveniently located clamp lever.



HIGH SPEED TAPPING ATTACHMENTS

No.

1-B
2-B

General Capacity

1-B No. 5 to 1/4" taps
2-B No. 10 to 3/8" taps

Capacity in Brass Aluminum Cast Iron

1-B 3/8" 3/8" 5/16"
2-B 1/2" 1/2" 7/16"

Steel

1-B 1/4"
2-B 3/8"

Maximum Speed

1-B 1800 R.P.M.
2-B 1200 R.P.M.

Weight

1-B 5 1/4 lbs.
2-B 8 1/2 lbs.

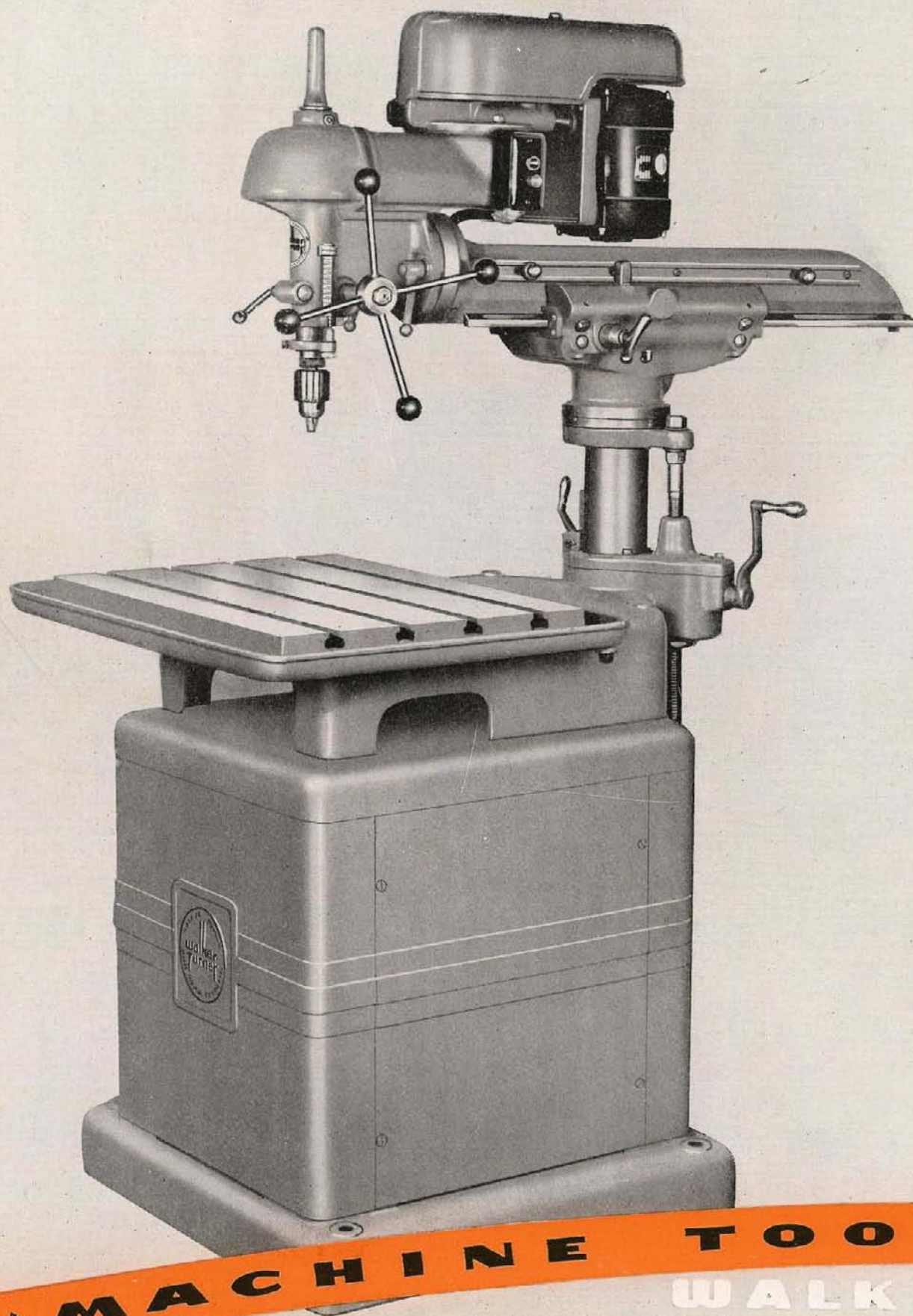
TURNER



FOR

INDUSTRY

W-T RADIAL DRILL PRESSES



MACHINE TOOLS
WALKER-



DRILLING—TAPPING—LIGHT PROFILING

The latest model Walker-Turner Radial Drill—RD1175J—features a built-in ball bearing jack-shaft which greatly widens its speed range and usefulness. When using an 1140 R.P.M. motor, 16 speeds, from 110 to 5400 R.P.M., are available. With a 1740 R.P.M. motor, this speed range is increased to 160 to 8300 R.P.M.—sixteen speeds in all. Specifications on next page give full details.

In addition to the jack-shaft, the RD1175-J is also equipped with a ball thrust bearing on the column support collar. This feature makes moving the drill head to any position within its range a very simple operation.

Manufacturers have found Walker-Turner Radial Drills particularly valuable where heavy or cumbersome workpieces make it easier to spot the drill head than to move the work. They handle all drilling and tapping up to $\frac{1}{2}$ " with the efficiency of much heavier machines whose capacity is wasted on lighter work.

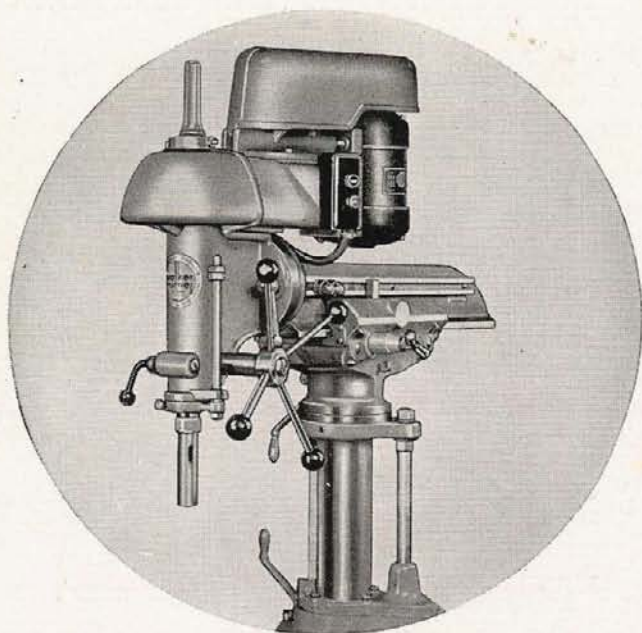
RD1175J—Radial Drill—Ball-bearing Column support and Ball-bearing Jack-shaft—16 speeds 160 to 8,200 R.P.M. with 1740 Motor. As shown opposite, less stand, and motor.....

MOTORS FOR RD1175-J

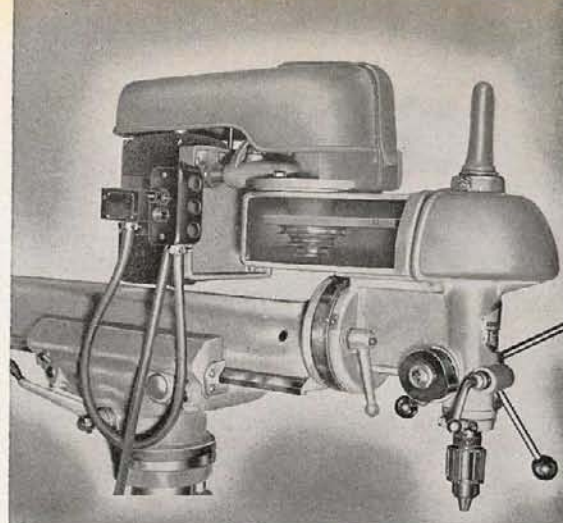
PAB5-E— $\frac{1}{2}$ H.P. 1740 R.P.M. 220 Volts 60 Cycle Three Phase

RD17-B — Cast-Iron Stand for RD1175-J

Note: Additional motors will be found on page 34. Switch is included in the price of all motors for Radial Drill.

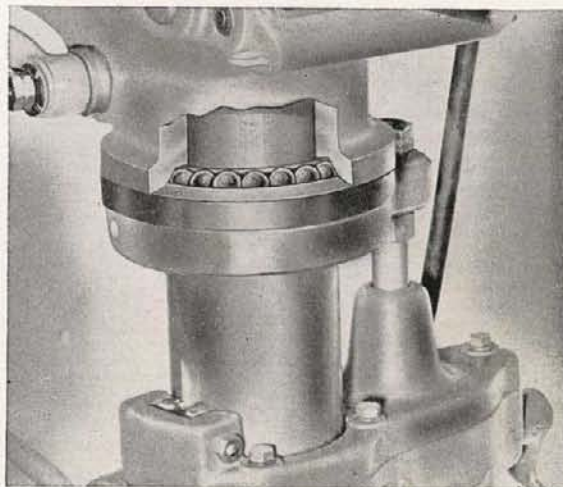


RD311XJ—Standard head assembly only Special heads (shown in circle) are available having 6" spindle travel in place of the standard 4 $\frac{1}{4}$ ". These special heads are made to order at extra charge.



Counter shaft drive on Model RD1175-J gives wide range of spindle speed.

Ball-bearing support collar on RD1175-J facilitates moving arm and head.



Head tilts to 45° in either direction.

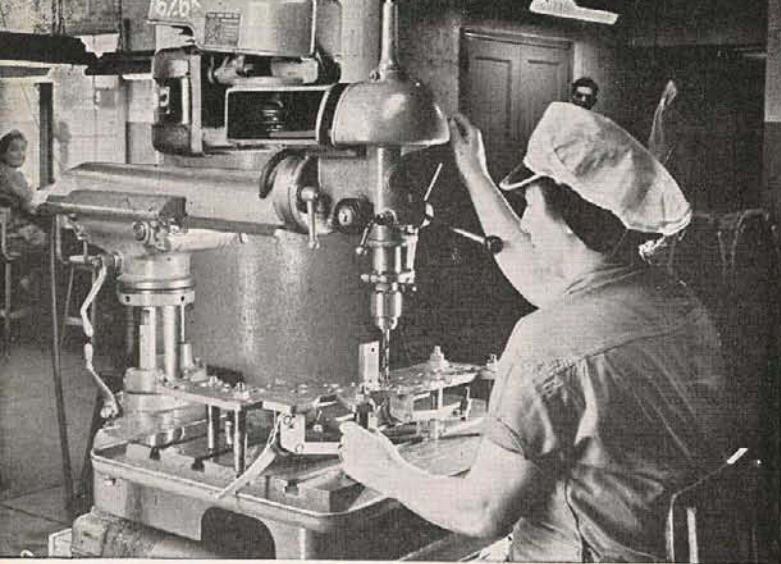


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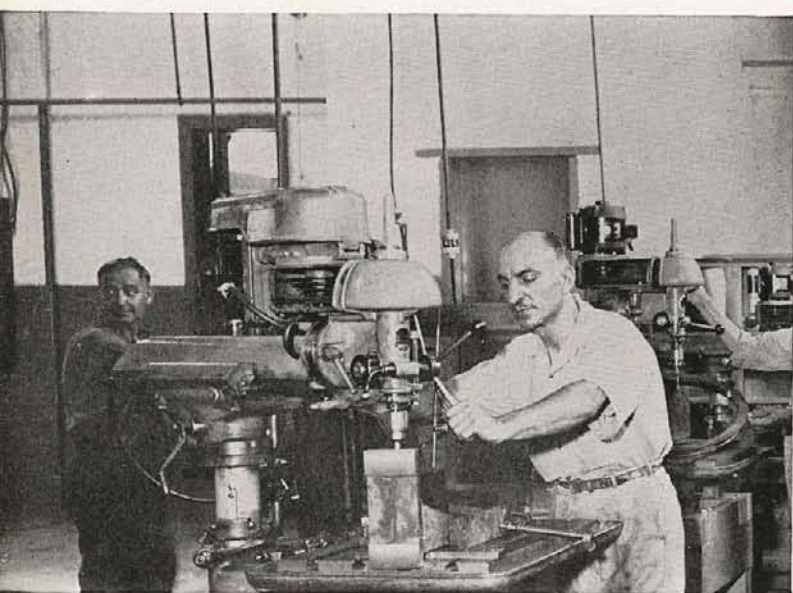


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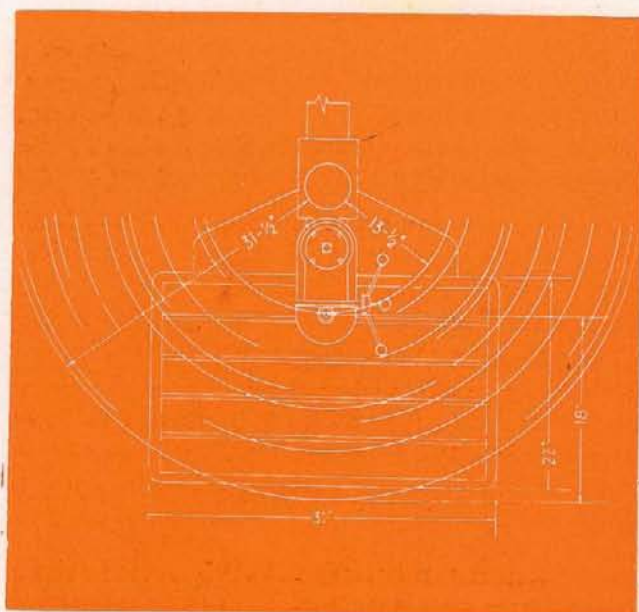
The unusual range of the W-T Radial Drill is illustrated here. This machine will drill to the center of a 62" circle. The drill head can be swung in a complete circle to accommodate large work.



In the toolroom or on the production line the W-T Radial Drill performs drilling, tapping, routing, light profiling and other such operations with speed and accuracy.



RANGE & CAPACITY



SPECIFICATIONS

No. 1 MORSE TAPER ADAPTER, or JACOBS CHUCK 0 to $\frac{1}{2}$ " capacity.

TABLE SIZE: 31" x 22". Machined surface, 28" x 19".

OVERALL DIMENSIONS: Height: 68 $\frac{1}{2}$ "; Width: 31"; Depth: 58".

SPINDLE SPEEDS: RD1175-J. Sixteen speeds from 160 to 8300 R.P.M. with 1740 R.P.M. motor, proportionately lower with 1140 R.P.M. motor. Available speeds with 1740 R.P.M. motor are 160, 330, 340, 580, 670, 680, 1000, 1200, 1300, 2000, 2160, 2700, 4000, 4700, 8300 R.P.M.

CHUCK TO TABLE: Maximum distance, 16 $\frac{1}{2}$ ".

VERTICAL TRAVERSE OF SPINDLE: 4 $\frac{1}{4}$ ".

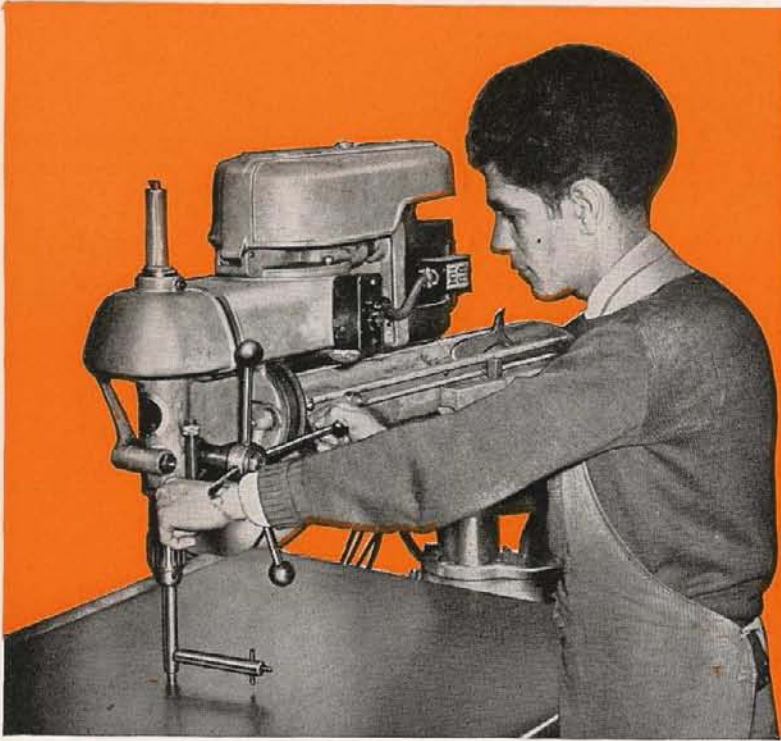
COLUMN TO DRILL CENTER: Maximum distance: 31". Minimum distance: 13".

MAXIMUM TRAVERSE OF RAM: 18".

WEIGHTS: RD1175J 630 lbs.
RD17B stand 350 lbs.

★ ★ ★ MACHINE TOOLS WALKER-

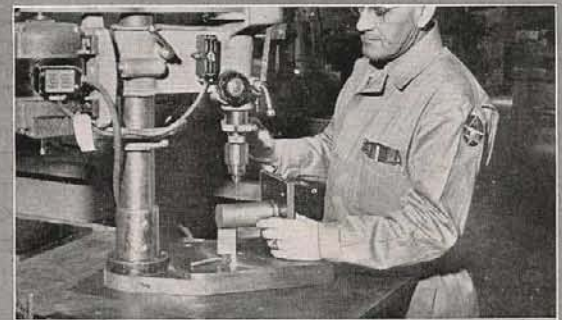
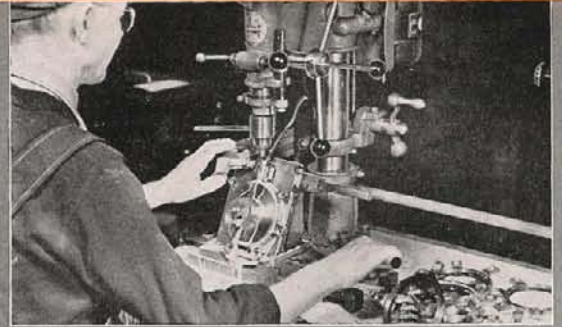
DRILL PRESS INSTALLATIONS



Walker-Turner Drill Presses have been time and service tested in all types of manufacturing plants in many parts of the world. Their inherent stamina, their ability to stand up under severe production demands and their adaptability has won for them definite industrial recognition. Particularly adapted to operation by unskilled help or women operators they are of considerable assistance in meeting today's shortages of machine tools and skilled help.

The photograph above illustrates a solution to the problem of fly-cutting on a large metal panel. In this operation at one of the plants of Federal Telephone and Radio Corporation, the large workpiece remains stationery while the drill head is swung into position — saving a good share of the work-handling which would be required on a conventional drill press.

Typical installations are shown at the right. Illustrated (from top to bottom) are: A precision drilling operation at North American Aviation Products, women operators using W-T drill presses at Fleetwing, a small section of the W-T installation at Wright Aeronautical. A large west coast aircraft manufacturer uses W-T drill presses in several different departments. The Lionel Corp. in filling war contracts depend on W-T Drill presses and women operators to maintain production.

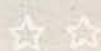


TURNER



FOR

INDUSTRY



WET AND DRY CUTTING OF STEEL AND STEEL ALLOYS

METAL CUTTING: On account of the wide variety of metals—different in shapes and sizes, formed into tubing or solid bars and flats, and consisting of unlimited varying degrees of hardness; we show on page 20 an orderly grouping with general recommendations for METAL CUTTING SAWS for the NON-FERROUS METALS, and Abrasive Wheels for Ceramics and FERROUS METALS.

STRAIGHTNESS and SMOOTHNESS: These are desirable factors along with minimum burr on hard high carbon steel tubing, etc. It is frequently economical to use the Radial Machine instead of the usual methods where shear, torch, hacksaw or band-sawing can not give the desired result. In the cutting of heavy solids and low carbon steel shapes, or hot rolled flats and bars we do not recommend the abrasive wheel as ECONOMICAL except in special cases.

TRANSVERSE TRAVEL: Mechanical principle of op-

eration that makes it possible to cut WIDE material and DIFFERENT shapes. Finger touch lightness with gliding ram on EIGHT PRECISION ball bearings—so the operator can “FEEL THE BITE” with SENSITIVE CONTROL. Very little practice is required to “feel” difference between “light rubbing” (feeding too slowly); “efficient” cutting (feeling the bite); and “forcing” (feeding too heavily).

VERY THIN WHEELS USED: Geared motor makes possible small diameter wheels. ONLY HALF AS MUCH WORK is required to part material with $\frac{1}{16}$ ” thin wheel as with $\frac{1}{8}$ ” thick wheel. Only half as much material is removed.

CONTROLLED ACCURACY: Tapered latches and rugged locking-levers insure accurate alignment and precision cutting. Right and left hand adjusting screws provide for maintaining accuracy. Both “climb-milling” and “kick-cutting” by reversing motor end for end about position.

MRA1112—RADIAL SAW, as shown opposite, but less base, including 1 H.P., single phase, 110-220 volt, 60 cycle, A.C., 3450 R.P.M. Motor, less abrasive wheel.

MRA1115—RADIAL SAW, same as MRA1112, less base except with $1\frac{1}{2}$ H.P., three phase, 220 volt, 60 cycle, A.C., 3450 R.P.M. Motor, less abrasive wheel and magnetic overload release.

MRA1120—RADIAL SAW, same as MRA1112, less base except with 2 H.P., single phase, 110-220 volt, 60 cycle, A.C., 3450 R.P.M. Motor, less abrasive wheel.

MRA1130—RADIAL SAW, same as MRA1112, less base except with 3 H.P., three phase, 220 volt, 60 cycle A.C., 3450 R.P.M. Motor, less abrasive wheel and magnetic overload release.

RA14B—Cast iron base as shown opposite

Odd voltages on 1 H.P. Single Phase, 5% Extra; Odd cycles on 1 H.P. Single Phase, 5% Extra; Odd voltages on 2 H.P. single phase, 5% Extra; Odd cycles on 2 H.P. Single Phase, 5% Extra.

Available in 2 phase. For 440 volts no Extra. Odd cycles 5% of Motor price extra. Other odd voltages 5% extra.

If Radial Saw is wanted with Long Ram, specify S after number, as MRA1112S. Long Ram available at extra charge.

SHIPPING WEIGHT lbs.

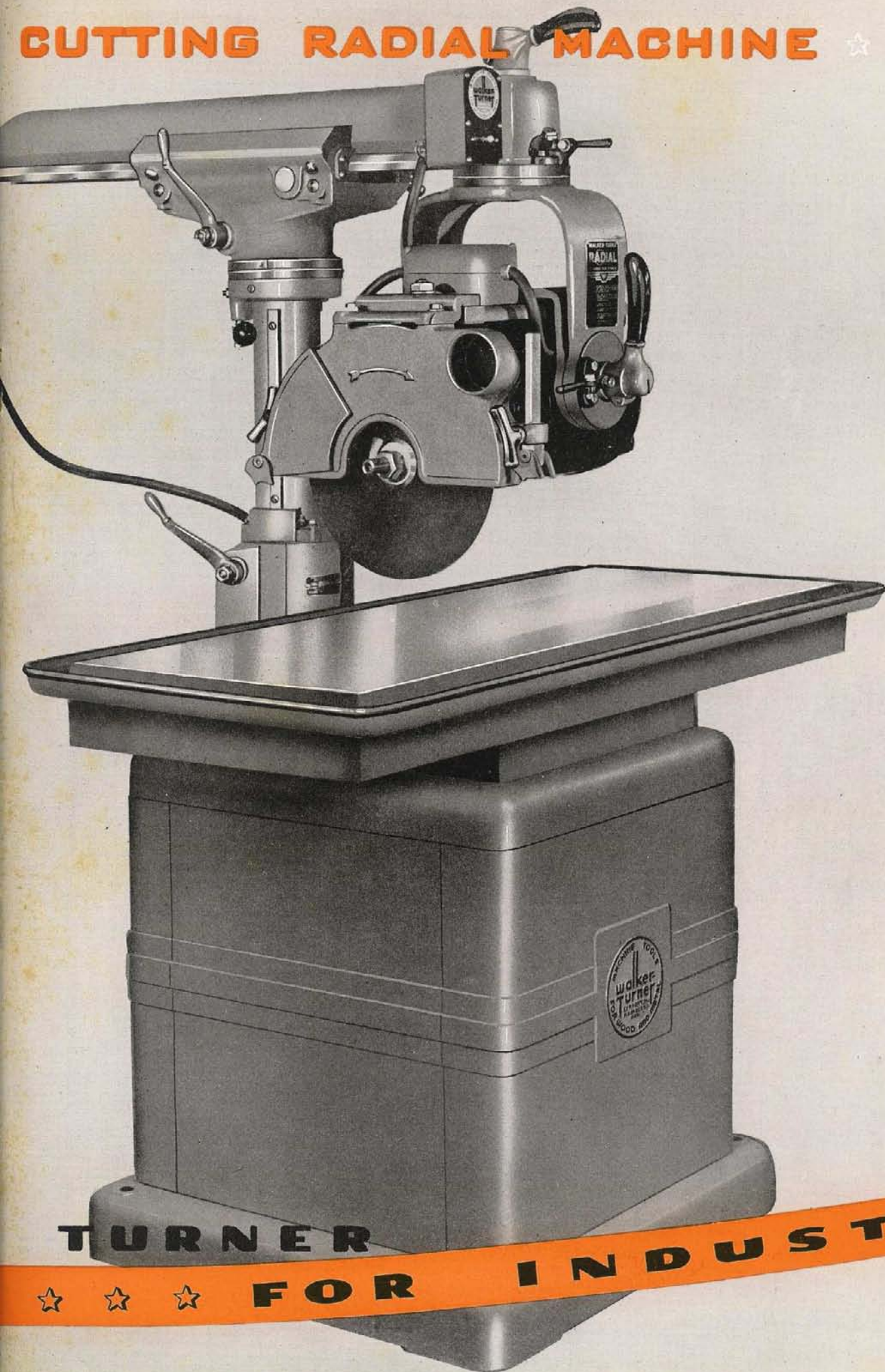
Machine with 1 H.P. Motor.....	445
Machine with 3 H.P. Motor	555
Metal Table Top	185
Cast Iron base	375



MACHINE

TOOLS WALKER-

CUTTING RADIAL MACHINE ☆ ☆

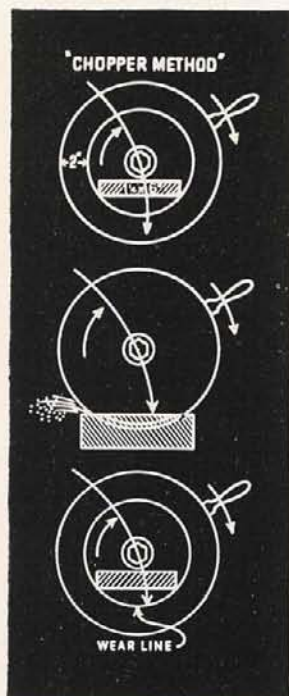


TURNER

☆☆ **FOR**

INDUSTRY

METAL CUTTING RADIAL MACHINE



REASONS WHY IT CUTS ECONOMICALLY

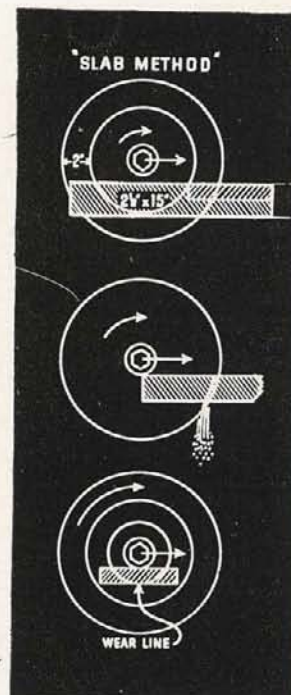
"SLAB CUTTING" METHOD USED: Wide flat metal stock, wide mouldings, sheets of insulating material, etc., are classified as "slab" materials on account of the WIDE cut required. The usually employed downward shearing motion classified as "chopper" method may be compared in operating principles with the "slab" cutter for CAPACITY, and EFFICIENCY OF ARC, and ECONOMY OF WHEELS.

MORE CAPACITY: Compare the areas of cross-section here drawn to actual scale. WIDTH and DEPTH are shown with suitable allowance for abrasive wheel wear. Actually 500% more capacity.

"SHORT ARC" VS. "LONG ARC": Small particles of the material being cut plus small particles of the wheel ROLL and RUB to cause friction and heat rather than cutting unless quickly released. The shorter the path they have to travel for release the better.

ECONOMY—MORE CUTS PER WHEEL: Abrasive wheels must be discarded when they wear down to the corner of the material by "chopper" method while "slab" method permits use until bottom line clears. 22% more utility out of EVERY wheel used—means approximately \$.45 saved on EVERY wheel—\$135.00 per year of 300 working days where only ONE wheel per day is worn out.

UNLIMITED USEFULNESS: Skillful design permits positioning the head so you can RIP WIDE SHEETS of metal or insulation material. You can move the material while saw is in fixed position. You can "trench" or dado, miter, compound miter, and also operate with motor in VERTICAL position. The applications and use of this machine are limited only by the ingenuity of the operator.



GENERAL RECOMMENDATIONS are made below for various materials. EVERY MATERIAL PRESENTS A SLIGHTLY DIFFERENT CUTTING PROBLEM. Solid bars and thin wall tubing of the SAME material require different treatment. It is IMPORTANT that you get the right blade or abrasive wheel.

ABRASIVE WHEELS listed are for general purpose. 12" diameter— $\frac{3}{32}$ " thick— $\frac{3}{4}$ " hole. Responsible abrasive wheel manufacturers render free engineering service and make recommendations if you submit a sample of the material to be cut and request a wheel of suitable grit, bond, structure, hardness, etc., for efficiently cutting the material to give desired finish and maximum number of cuts per wheel.

Classification	Group	Material	Wheel
FERROUS METALS	High Carbon	High Speed Stellite Hardened	237-M
	Low Carbon	Cold Rolled Angle Iron Steel Pipe	225-M
	Tubing Moulding	Sheet Iron Thin Wall Tubing Mouldings	465-M
NON-FERROUS METALS	Solids Tubing Shapes Sheets	Brass, Bronze Copper Aluminum Magnes (Dow Met)	236-M
CERAMICS	HARD	Porcelain, Vitrous Tile Slate, Marble	56-M
	MEDIUM	Fire Brick Limestone Brake Lining	53-M
	SOFT	Build-Tile Transite Terra Cotta	123-M
PLASTICS	MEDIUM	Bakelite Catalin Hard Rubber	21-M

SPECIFICATIONS

Height Overall (with steel stand)	61"
Height of Floor Stand	29"
Size of Table Top	46" x 24"
Floor Space Required	4' x 5'
Standard Ram Travel	21½"
Special Long Ram Travel	28½"
Total Vertical Adjustment	8½"
Saw Spindle— $\frac{3}{4}$ " Diam. 2½" long.	

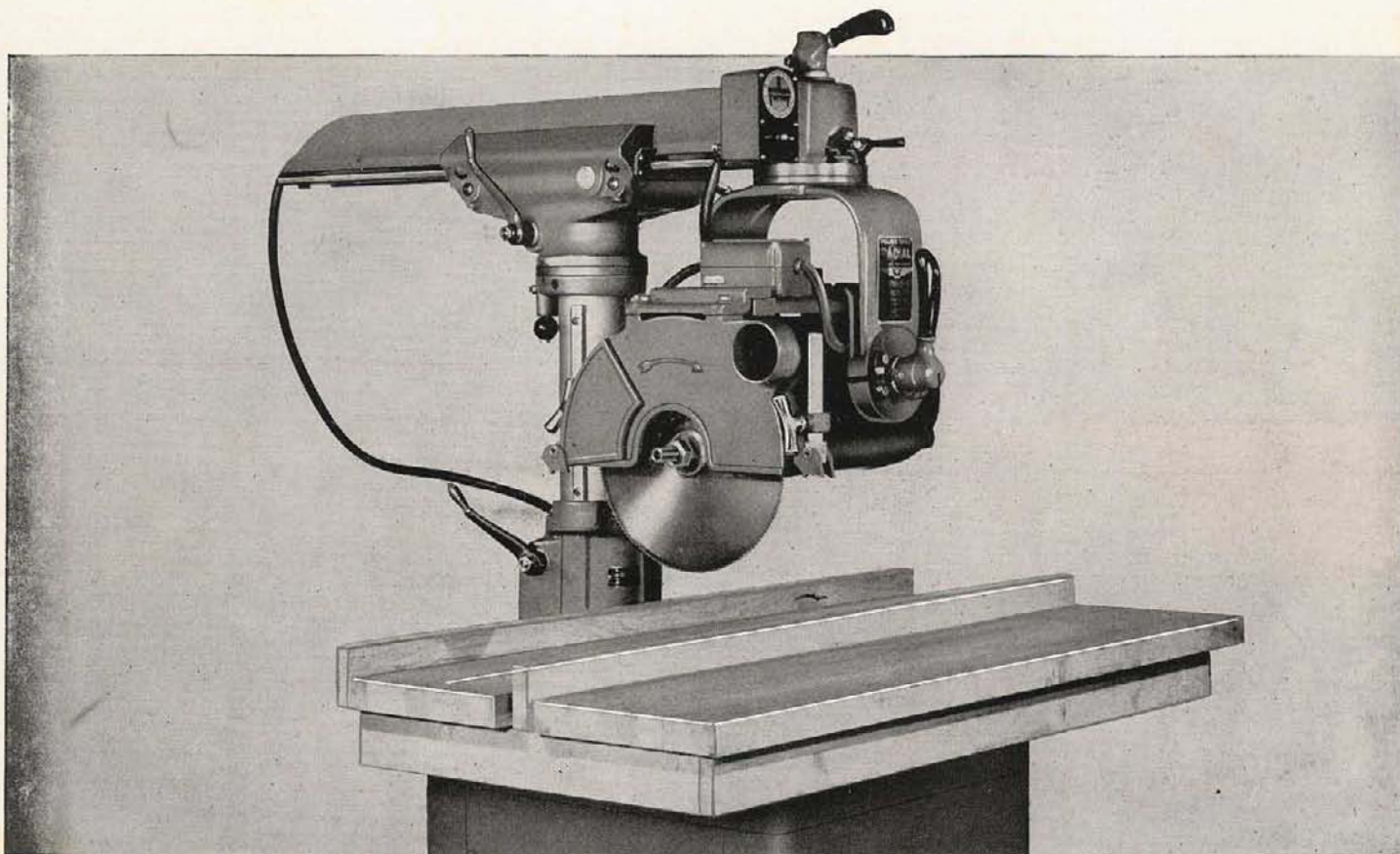
Depth of Cut with 1 H.P. and 1½ H.P. Motors

8" Blade— $\frac{23}{4}$ " deep.
10" Blade— $\frac{33}{4}$ " deep.
12" Blade— $\frac{43}{4}$ " deep.
(Deduct only ½" for 2 or 3 H.P. Motors)

SHIPPING WEIGHT

	LBS.
Machine, with 1 H.P. Motor	445
Machine, with 3 H.P. Motor	555
Maple Table Top	75
Cast Iron Floor Stand	375
Metal Table Top	185

MACHINE TOOLS
WALKER-



FOR CUTTING WOOD PLASTICS AND NON-FERROUS METALS

MODERN DESIGN: Correct mechanical principles—balanced power—skillful arrangement for taking care of structural stresses and strains so accurate performance is assured and maintained.

GLIDING RAM: Moves $21\frac{1}{2}$ " with finger touch lightness on 8 precision Ball-Bearings. Operator has clear view of work and no interference from overhanging arm extending out over the table.

UNIVERSAL HEAD: Convenient locating latches and locking levers for quick change and rigid setting. Mechanical adjustments for maintaining accurate alignment.

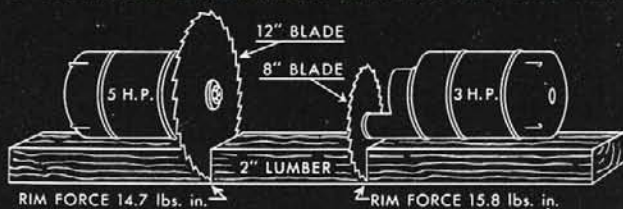
GEARED MOTOR: Equipped with a patented "SHOCK ABSORBER" or mechanical cushion—an exclusive feature—U. S. Patent No. 2,236,854. (Not used on 2 and 3 H.P. motors.)

SAFETY GUARD: With adjustable segment for covering otherwise exposed part of saw blade—double kick backs provided both front and rear.

MAPLE TABLE TOP: Selected kiln dried maple laminated—46" x 24"—removable center fence with quick change wedges. Rigidly supported on ONE PIECE base extending out under table to support it and insure ACCURACY.

UNEQUALLED CAPACITY: Rips 38" wide. Travels $21\frac{1}{2}$ " to cut material $4\frac{3}{4}$ " deep with 12" blade. For mitering, compound mitering, shaping and routing its capacity is unequalled.

5 H.P. PERFORMANCE WITH 3 H.P. MOTOR



12" blade cuts	$4\frac{3}{4}$ "	8" blade or Dado	$3\frac{3}{4}$ "
10" blade cuts	$3\frac{3}{4}$ "	6" Dado Head	$1\frac{3}{4}$ "
2" x 8" Jack Rafters are cut with 10" saw.			
(Deduct only $\frac{1}{2}$ " capacity for larger 2 & 3 HP Motors)			

RA1104—RADIAL SAW COMPLETE, as shown above, including 1 H.P., single phase 110/220 volt, 60 cycle, 3450 R.P.M., A.C., motor, two 10" blades and RA1185 Maple Table Top.....

RA1106*—RADIAL SAW, same as RA1104, except with $1\frac{1}{2}$ H.P. 3 phase 220 volt and without magnetic overload release

RA1107*—RADIAL SAW, same as RA1104, except with 2 H.P., single phase 12" blades instead of 10"

RA1108*—RADIAL SAW, same as RA1107, except with 3 H.P., three phase, 220 volt, 60 cycle, A.C., Motor, and without magnetic overload release.....

RA1185—MAPLE TABLE TOP, laminated, 46" x 24".

RA14B—CAST IRON FLOOR STAND

Odd voltages on 1 H.P. Single Phase, 5% Extra; Odd cycles on 1 H.P. Single Phase, 5% Extra; Odd voltages on 2 H.P. single phase, 5% Extra; Odd cycles on 2 H.P. Single Phase, 5% Extra.
Available in 2 phase. For 440 volts no Extra. Odd cycles 5% of Motor price extra. Other odd voltages, 5% extra.
If Radial Saw is wanted with Long Ram, specify S after number, as RA1104S. Long Ram available at extra charge.

TURNER

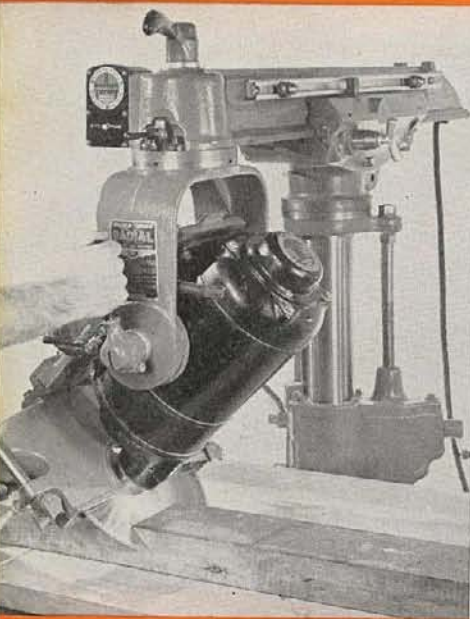


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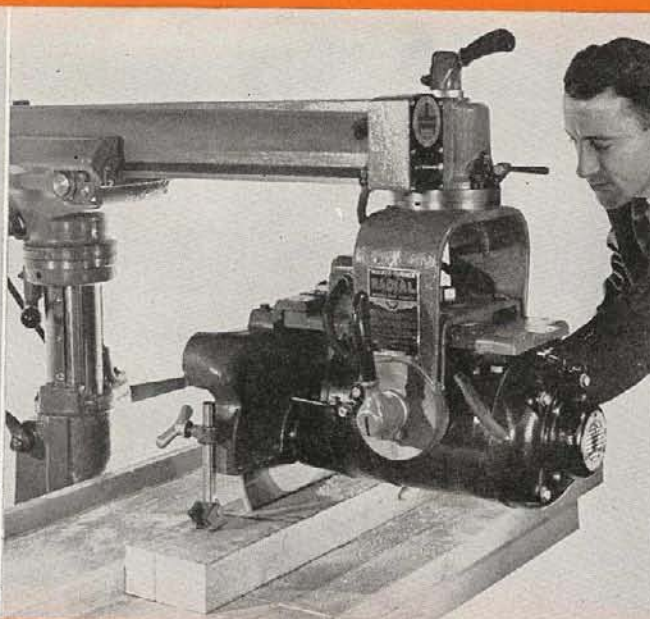
INDUSTRY



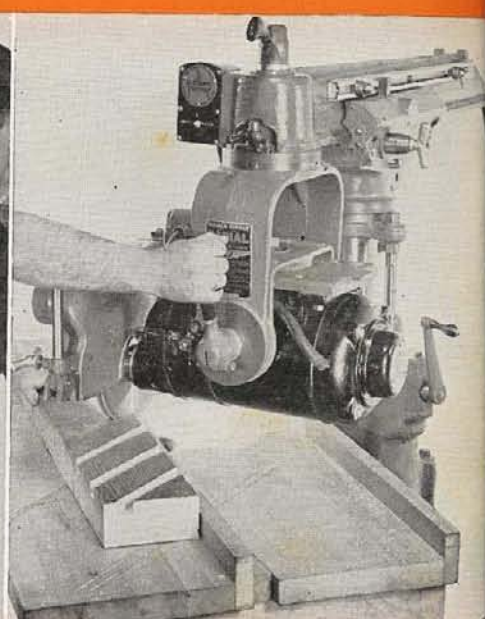
Three Walker-Turner Radial Saws are mounted on a 40 foot conveyor table reaching to the railroad siding. This set-up reduced cost of cutting studs and rafters by 2/3; cut waste from 10% to less than 1/10 of 1% and decreased handling costs 50%. Photo courtesy Well-Built Manufacturing Co.



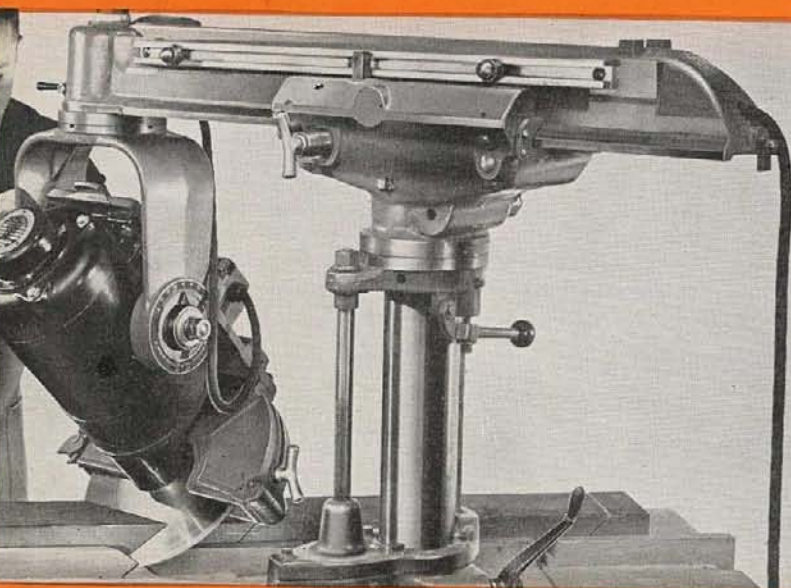
Mitering



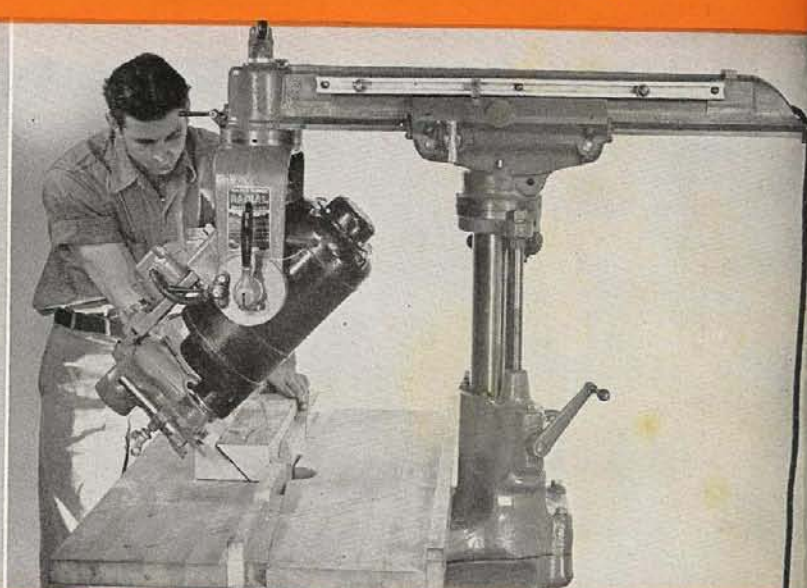
Ripping



Dadoing

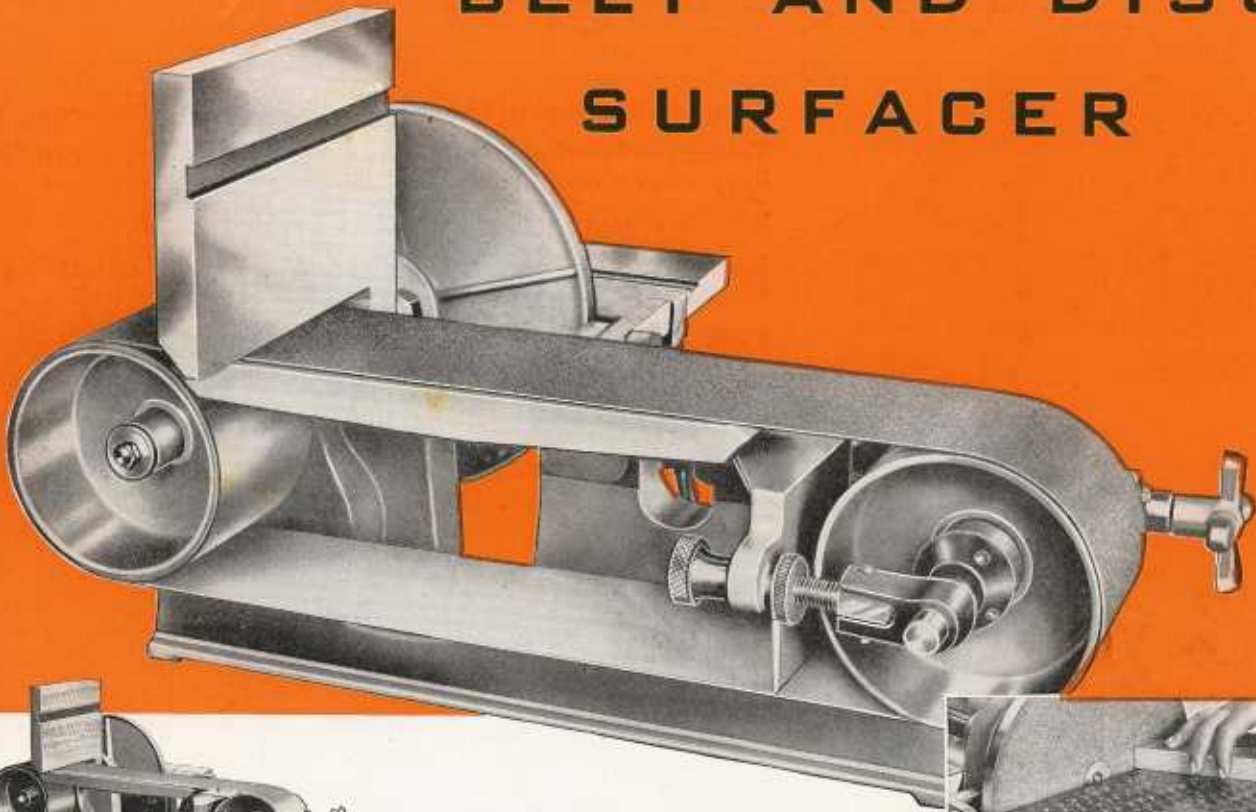


Compound mitering



Angle ripping

BELT AND DISC SURFACER



SPECIFICATIONS

BASE: Heavy cast-iron, accurately machined for various parts. Has built-in drive belt and pulley guard.

BEARINGS: Completely dust-sealed, packed with grease at the factory and require no further attention or lubrication. Four ball bearings are used.

PULLEYS: Aluminum die castings 5" in diameter, accurately balanced. Drive pulley is rubber faced and slightly crowned.

BELT: Aluminous oxide, fabric backed. Available in three grades of grit, 36, 60 and 120. Regular equipment 60 grit. Belt 4" x 52½". Tension varied by cushion spring control.

SANDING DISC: 10" diameter, cast-iron, carefully balanced.

ABRASIVE: Aluminous oxide, 40 grit. 60 and 80 grit abrasive discs also available.

MACHINE SPEEDS: 765, 1350 and 2275 R.P.M.
ABRASIVE BELT SPEEDS: 1050, 1760 and 3100 feet per minute.

TILTING TABLE: Hinged for disc. Cast-iron with smooth ground surface. 12" x 6", tilts from 90° to 45°, with angle of tilt indicated on graduated quadrant.

MITRE GAUGE: Furnished regular equipment.

SANDING TABLE: (Under the upper section of belt) cast-iron, carefully machined 12" x 4¼". Is attached to and adjusts on base. Carries a stop table 8½" x 6", which tilts 90° with indicator and graduated collar.

PIVOTED BRACKET: With knurled adjusting and lock nuts to control idler pulley alignment.

DISTANCE: Between centers of pulleys 18".

LENGTH: Overall 29". **HEIGHT:** Overall 16".

SHIPPING WEIGHT: SM700 (98 lbs.), SM705 (143 lbs.).



(Above) Sanding with Disc.



(Above) Stroke Sanding.
(Below) Sanding Mitred Joint.



ABRASIVE BELTS & DISCS

Aluminous oxide, fabric backed for SM700. Endless, 53" long.

- SM36B—36 grit belt. _____
- SM60B—60 grit belt. _____
- SM120B—120 grit belt. _____
- SM40—40 grit, pkg. of 6. _____
- SM60—60 grit, pkg. of 6. _____
- SM80—80 grit, pkg. of 6. _____

FLOOR MODEL — With the special all-steel stand it is possible to do "stroke surfacing" on large panels, up to 12" in width and 4' to 5' in length. The shelf is adjustable up and down for a distance of 14" permitting wood up to that thickness to be sanded.

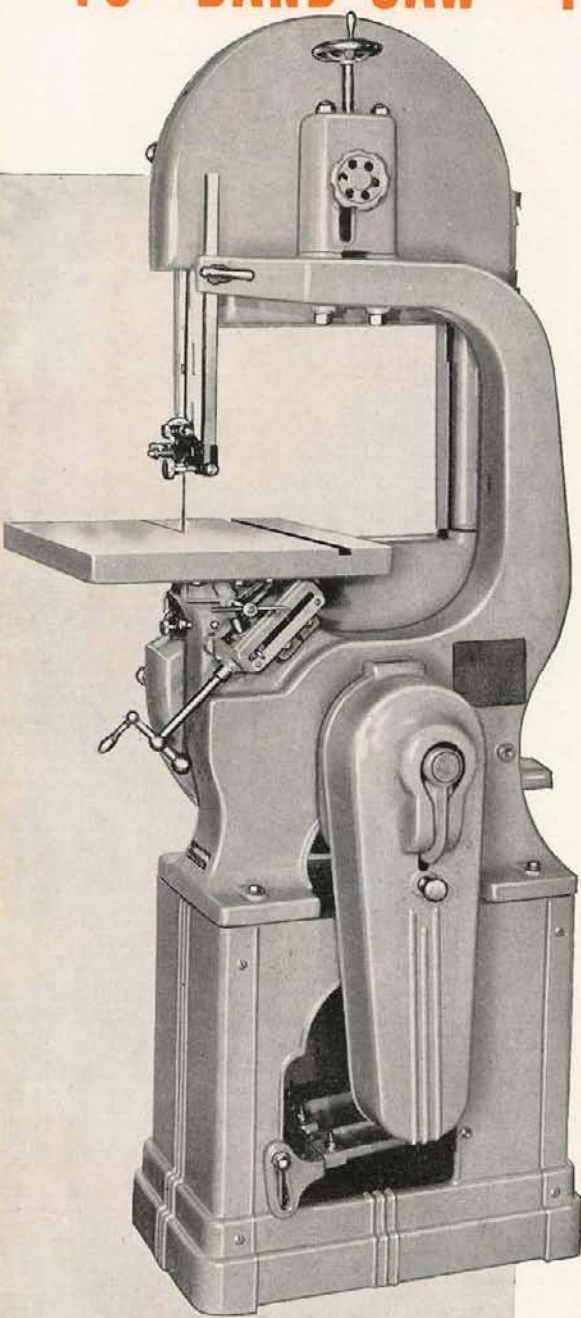
SM700—Surfacer (as shown above) includes motor pulley, V belt, hand block and mitre gauge.

SM705—SM700 Surfacer with steel bench, above (less motor).

(Motor recommended—for ordinary work ⅓ H.P. 1740 R.P.M. For heavy work ½ H.P. 1740 R.P.M.)

24 — Bench only, for converting SM700 to SM705.

16" BAND SAW—FOR METAL, WOOD AND PLASTICS



All wheel bearings are heavy duty precision ball bearings.

Tables are heavily ribbed and carefully machined, tilt to 45° and have mitre gauge grooves.

Wheels are carefully balanced and rubber faced.

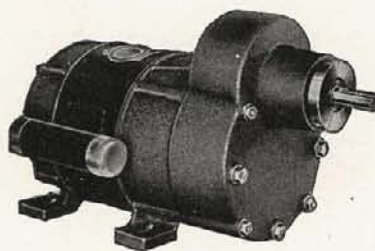
Blade guides have ball bearing thrust wheels and adjustable steel-faced guide pins designed especially for metal cutting.

Blade tensioning devices have spring cushions to absorb shocks.

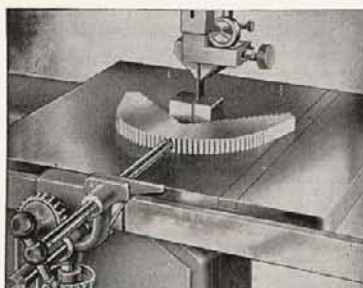
Guard construction assures complete protection to operator.

Back gear unit provides wide range of slow speeds.

Heavy cast-iron, one piece frames have extra strength and rigidity.



SLO-SPEED MOTOR — A new 716 R.P.M. back geared motor provides the extremely slow speeds necessary in cutting certain types of steel. Used on these metal cutting machines many speeds are available.



SCREW FEED—The screw feed with guiding segment, shown above left, greatly simplifies metal cutting. This attachment clamps to the table guide bar with the screw directly in line with the saw blade. The segment is not attached to table or screw. It holds square, hexagonal, triangular or round work in line without clamping while the screw advances it into the blade.

9BN125—Including guide bar.

11BN2—Belt guard for BN1135 and BN905



BACK-GEAR UNIT — This photo shows how substantially this unit is built. It is designed for long-run, trouble-free service on steady production work. Back-gearing and cone pulley—similar to those found on a screw-cutting lathe—provide eight speeds suitable for cutting practically every material from tool steel to wood. The gear train can be disengaged and the machine operated on direct drive for higher speed operations.

U. S. Pat. No. 1,996,825
MBN1105—16" metal cutting band saw, as shown, less motor, rip fence and base. Includes 1/2" blade, new metal cutting guides, belt guard, belt and motor pulley.

BN1135—For woodworking. Same as above, less gear assembly and belt guard.

11BN45—Cast-iron base.

KAB5E—1/2 H.P., 1740 R.P.M. motor 110 volts, AC, 60 cycles.

GIB5E—1/2 H.P., 716 R.P.M. geared motor, single phase, 110-220 volts, AC, 60 cycles.

GIB7E—3/4 H.P., 716 R.P.M., 3 phase, 220 volts, AC, 60 cycles motor.

(Note: GIB5 and GIB7 require the use of V.B. 44 belt.)

MACHINE TOOLS WALKER-

14" BAND SAW—FOR METAL, WOOD AND PLASTICS

Every tool room, experimental department, general machine shop and metal-working plant has an opportunity to save money with these new back-geared band saws. They cut sheets, rods and tubes of steel, iron, aluminum, brass, alloys and compositions quickly, accurately and economically. Molded plastics such as bakelite and catalin are also cut or trimmed efficiently on these metal cutting band saws.

In many shops these machines will pay for themselves on the first job. Their low initial cost and high operating efficiency combine to make them indispensable tools . . . money-makers from the start.

The geared speed reducer is a precision unit designed by engineers who know what is required of such a unit. A glance at the photos on the opposite page will show you that it is correctly and substantially designed for long-run, trouble-free service on steady production work. A feature that adds still greater value is the fact that the metal cutting machine may be speeded up for woodworking. By simply throwing the lever which disengages the gear train and engaging a pin it is immediately converted into a direct-drive machine with correct speeds for woodworking.

WHEELS: Gray iron carefully machined and balanced, rubber faced.

BALL BEARINGS: Large dust-sealed, precision in both wheels.

GUIDES: Are both ball-bearing with steel insert blocks for metal cutting.

WHEEL GUARDS: Are cast-iron hinged for convenience . . . telescoping guards at area of operation.

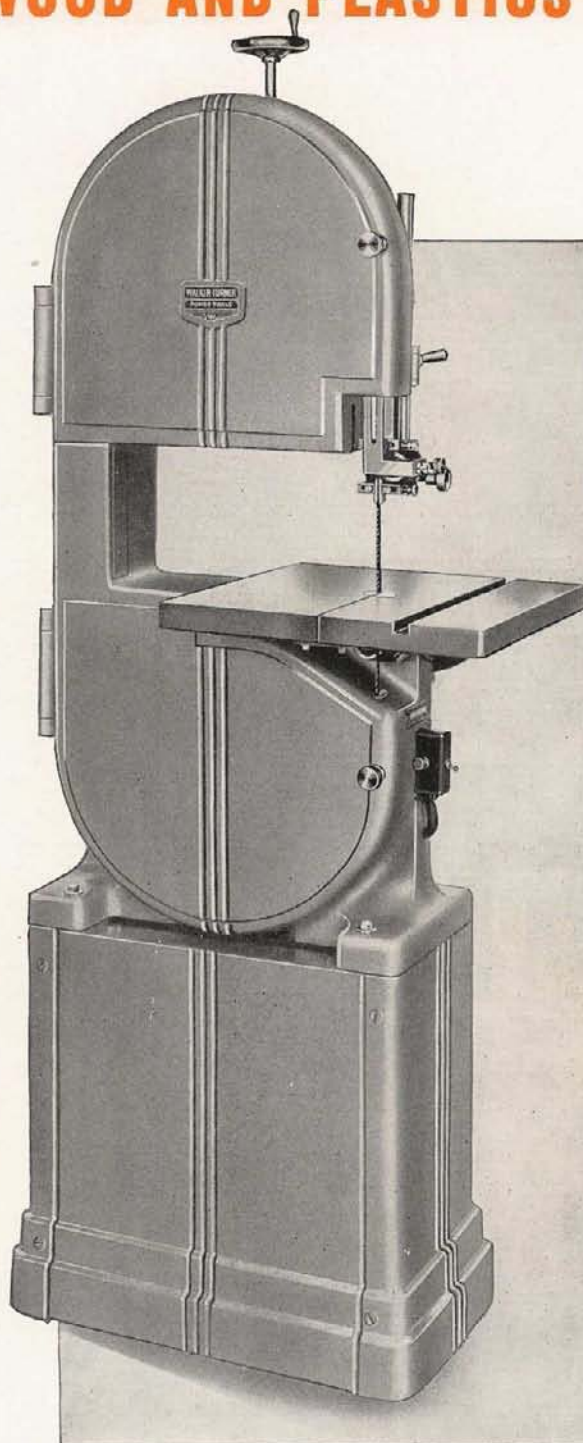
ADJUSTING MECHANISM: Blade and upper wheel mounted on two

heavy ground steel rods . . . Cushion springs absorb blade shocks.

MOTOR BRACKET: At rear of frame supplied with 16" model. For 14" model available as an extra.

BLADE SPEEDS: Standard motor, 16" model, 200, 300, 400, 560, 2000, 3000, 4150, 5300 F.P.M. 14" model, 175, 260, 350, 490, 1750, 2625, 3630, 4630 F.P.M. Slo-speed motor, 16" model, 70, 106, 151, 208, 746, 1129, 1607, 2216 F.P.M. 14" model, 61, 93, 132, 182, 653, 1103, 1413, 1950 F.P.M.

	16" Model	14" Model
Capacity, blade to frame	16"	14"
Capacity, guide to table	12"	7"
Table size	18" x 17"	16" x 16"
Blade speeds, ft. per min., standard motor	200-5300	175-4630
Blade speeds, ft. per min., slow-speed motor	70-2216	61-1950
Height overall, without base	50½"	44"
Height overall, with base	71½"	65"
Width	30½"	25¾"
Distance front to back	22"	20"
Shipping weight, without base or motor	455 lbs.	350 lbs.
Shipping weight, with base, less motor	575 lbs.	470 lbs.



MBN935—14" metal cutting band saw, as shown above with new metal cutting guides including belt, motor pulley and guard; less base and motor

BN905—For woodworking. Same as above less gear assembly and belt guard.

9BN5—Motor bracket for rear mounting (not needed with 11BN4S).

11BN4S—Cast-iron base

See page 24 for motors.

BLADES FOR 16" BAND SAW

Cat. No.	Price	Width	Teeth Per In.
11BN90		1½"	10
11BN91		1½"	14
11BN92		1½"	18

*Blade length 114¾"

BLADES FOR 14" BAND SAW

Cat. No.	Price	Width	Teeth Per In.
9BN55		1½"	10
9BN56		1½"	14
9BN57		1½"	18

*Blade length 96⅝"

Above blades for mild steel and non-ferrous metals.

A chart of blades recommended for various materials upon request.

TURNER

FOR

INDUSTRY



W-T POLISHING LATHES



LEFT—Model No. TPL 10, showing $\frac{3}{4}$ " Jacobs Chuck and gear housing.

CENTER—Four inch Universal Chuck can be supplied in place of the Jacobs Chuck. Add symbol "A" to model number.

RIGHT—Rear view shows clean cut lines of switch and brake housing.

WALKER-TURNER POLISHING LATHES fill a definite need in all industries where accurate finishing of metal parts is necessary. Engine builders, (airplane, tank and marine) Arsenals, Airplane manufacturers, Ship-yards and other metal working plants are using this machine for finishing operations that were formerly done on more expensive machines which can be released for other types of work. These new machines will be found especially adapted for burring, polishing, and hand lapping operations that are usually performed on the conventional type engine lathe.

THE MOTOR is a standard W-T 3 H.P. frame wound for $1\frac{1}{2}$ H.P. To assure cool operation the motor is not fully enclosed, but ventilated through an air inlet located in the base of the machine. (Available in 3 phase only.) Abrasive dust is thus settled out and does not enter the motor. The base is made from heavy iron castings and is of correct height for comfortable operation.

BEARINGS are of the double and single row type, and are provided with shields to retain lubricant and exclude foreign materials.

BRAKE is of the self releasing automotive type and bands are lined with high grade brake lining. Brake bands operate against a cast-iron drum which is keyed to the motor shaft. The foot pedal operates the brake and motor switch simultaneously. Adjusting bolts provide means for regulating brake pressure and adjusting for wear.

SPINDLE SPEEDS—W-T Polishing Lathes are available with speeds ranging from 950 to 7200 R.P.M.

ELECTRIC EQUIPMENT is all of approved type. Allen Bradley limit Switches are used in conjunction with the foot pedal and they operate through a magnetic circuit breaker attached to the base of the machine.

DIRECT DRIVE MODELS shown at the left are identical in all features to the geared model except that the chuck is attached directly to the motor shaft. The speed range of this model is also somewhat limited. It is available with speeds of 1800 or 3600 R.P.M.

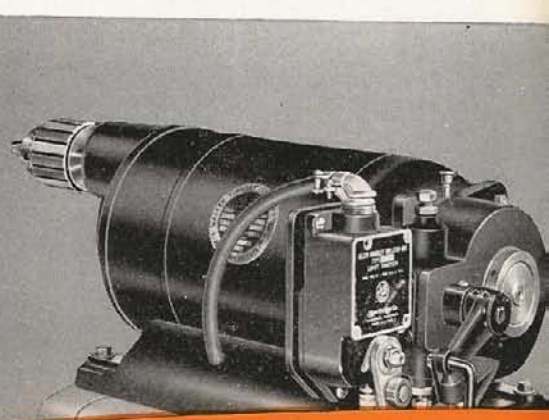
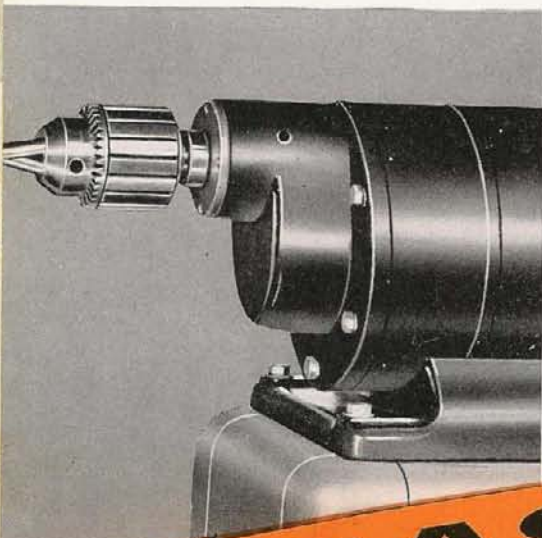
Special speeds, voltages and cycles are available in some instances. Write to the factory describing special needs. Your inquiry will receive prompt attention.

TPL 6 POLISHING LATHE—1800 R.P.M. Less Chuck Spindle has No. 4 Jacobs Taper

TPL 8 POLISHING LATHE—3600 R.P.M. No. 18 Jacobs Chuck $\frac{3}{4}$ " Cap.

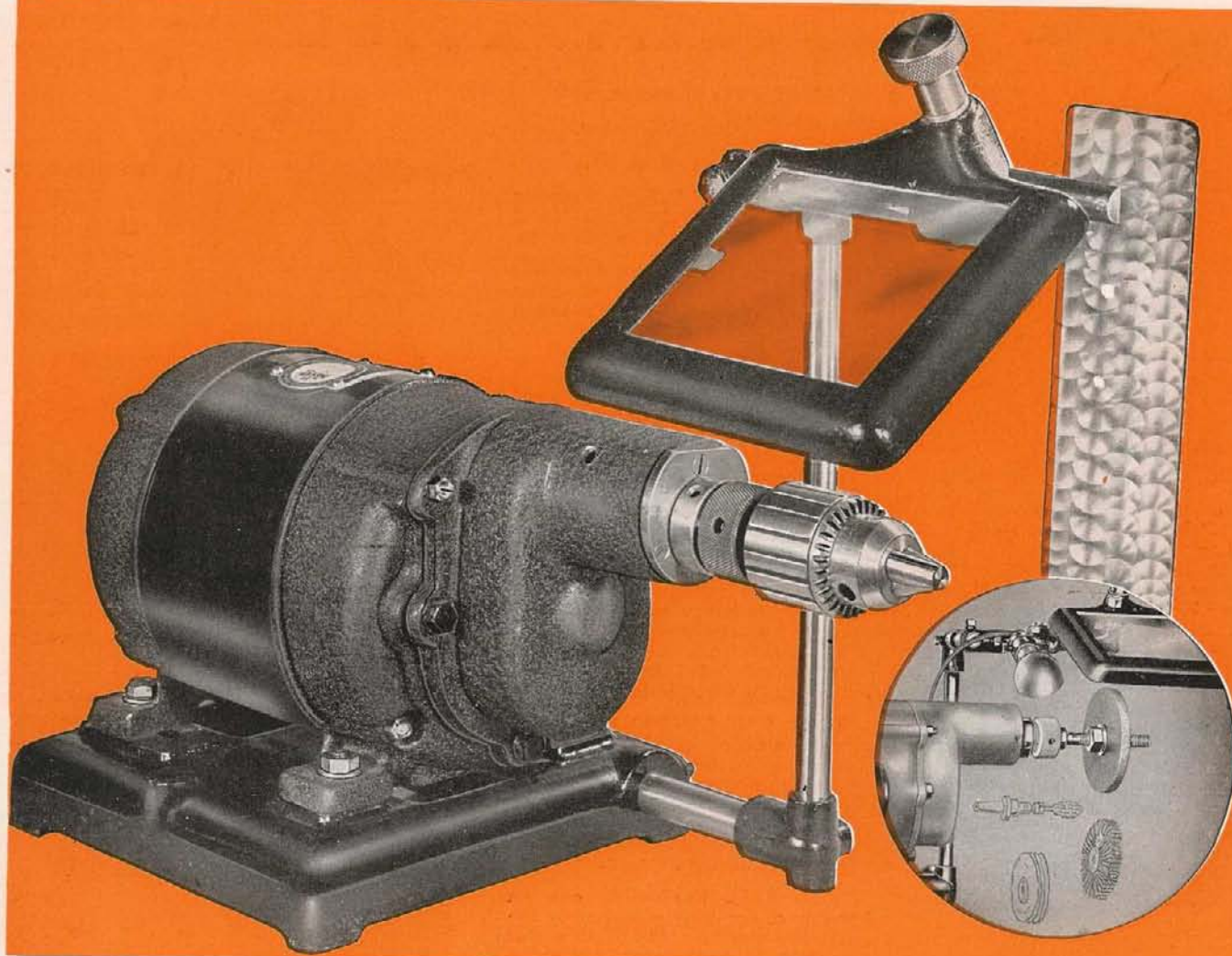
TPL 10 POLISHING LATHE—Geared motor in any of the following speeds, 950, 1500, 1800, 2200, 3000, 3600, 4400 and 7200 R.P.M. with No. 18 Jacobs Chuck $\frac{3}{4}$ " Cap.

Note: Geared lathes only up to 3600 R.P.M. can be supplied with $1\frac{1}{2}$ "—8 thread spindle extra



★ ★ ★ **MACHINE TOOLS**
WALKER-

W-T POLISHING LATHES



This ruggedly built grinder was developed several years ago for one of the most widely known airplane engine manufacturers. Since then hundreds of these machines have been put into operation in tool rooms and on production lines in factories engaged in producing airplane parts and similar type of equipment.

The over-hanging extension of the geared spindle providing complete accessibility and a high speed of 7600 R.P.M. make an ideal combination for light grinding, burring and polishing operations.

Standard speeds available for 60-cycle current for these two types, WAC7 and WAC8, are 3600, 4400 or 7600 R.P.M. according to order. Motor is semi-enclosed $\frac{3}{4}$ H.P. single phase 110/220 Volt—60 cycle A.C. or 3 phase 220 or 440 Volt. Special voltages and cycles available on special order.

WAC7 GEARED GRINDER including eye-shield, $\frac{1}{2}$ " work arbor and $\frac{5}{16}$ " collet chuck—3600 R.P.M., 4400 R.P.M. or 7600 R.P.M.—110/220 Volt—60 cycle A.C. $\frac{3}{4}$ H.P.

WAC8 GEARED GRINDER as shown, including eye-shield and Jacobs Chuck —0"— to $\frac{1}{2}$ " capacity, 3600 R.P.M., 4400 R.P.M. or 7600 R.P.M.—110/220 Volt—60 cycle A.C. $\frac{3}{4}$ H.P.

TURNER
 ☆ ☆ ☆ **FOR** **INDUSTRY**

W-T POLISHING LATHES

VARIABLE SPEED

SPECIFICATIONS

OVERALL HEIGHT: 47 inches.

SWING OVER BASE: 15½ inches.

DISTANCE: Spindle to floor 38".

SPINDLE SIZES: 1 inch diameter threaded 1"-12 R&L No. 2 Morse Taper in spindle nose.

BEARINGS: SKF, double row at spindle nose—single row at other end, pulley is placed between the bearings.

Designed to meet a specific need where frequent speed changes are necessary the W-T Variable Speed Polishing Lathe has met with complete success wherever it has been installed.

SPEED RANGES from 260 R.P.M. 4500 R.P.M. are available depending on motor and motor pulley used. Speed changes are affected through a variable diameter pulley mounted between the motor and headstock pulley. Changes are made by a hand-wheel conveniently located on the front of the headstock casting. A graduated scale shows the speed at which the spindle is running.

HEAD STOCK SPINDLE is 1" in diameter threaded on both ends to carry a chuck or other holding device. A 4" 3 jaw universal chuck is supplied with the machine. The spindle is hollow, having a 5/8" diameter hole through its center; this permits chucking small diameters of indefinite length.

TWO BALL BEARINGS, one on either side of the drive pulley carry the spindle. The bearing at the chuck end of the spindle is double row preloaded and will take all thrust as well as radial loads.

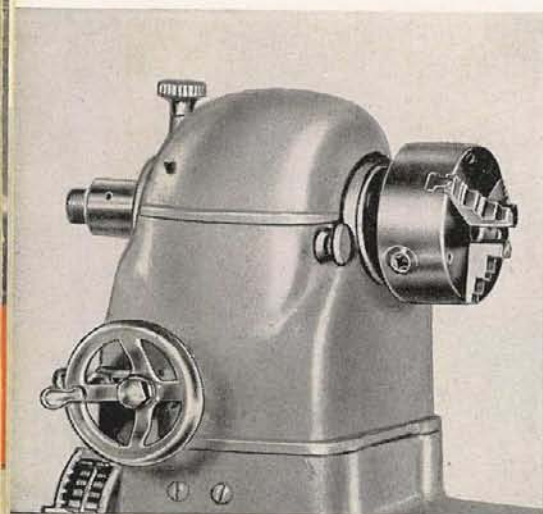
THE MOTOR is suspended below the headstock casting and is completely enclosed by the base which protects it from dust and chips. Spindle speeds are governed by the selection of motor and motor pulley as shown in the chart below.

Motor R.P.M.	Catalog No.	Pulley Dia.	Min. R.P.M.	Max. R.P.M.
1740	KAB5S or	2"	260	2000
1740	PAB5	4"	465	3750
1740-3450	LPAEB5	2"	260	4500

SVL52 POLISHING LATHE complete with 2" motor pulley (less motor and chuck)

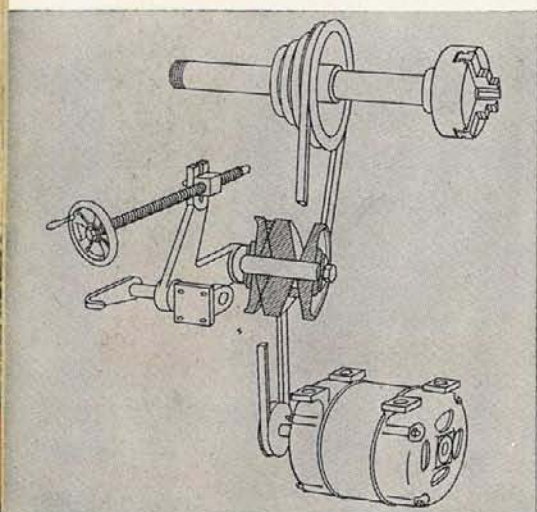
KAB5-E ½ H.P. 1740 R.P.M. motor—110/220 Volts 60 cycle A.C.

PAB5-E ½ H.P. 1740 R.P.M. motor 220 Volt—60 cycle—3 phase A.C.

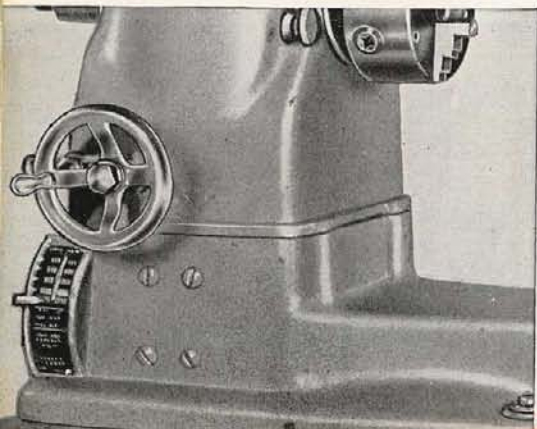


The 4" Universal Chuck is mounted on a hollow spindle. Work up to 5/8" in diameter may be passed through the chuck and spindle.

Schematic drawing below shows relative position of motor, variable pitch pulley and spindle pulley.



The hand wheel provides infinitely variable spindle speeds within the range specified.



MACHINE TOOLS
WALKER-

W - T 10 INCH GRINDER

THE MOTOR is fully enclosed and specially designed seals prevent the entrance of dust into ball bearings. The motor end bells are extended, allowing the use of both sides of the grinding wheels.

WHEEL GUARDS are of heavy construction with removable covers affording ready access to the wheels.

TOOL RESTS are rigidly mounted on steel bars which extend from the base. Every necessary adjustment is readily available.

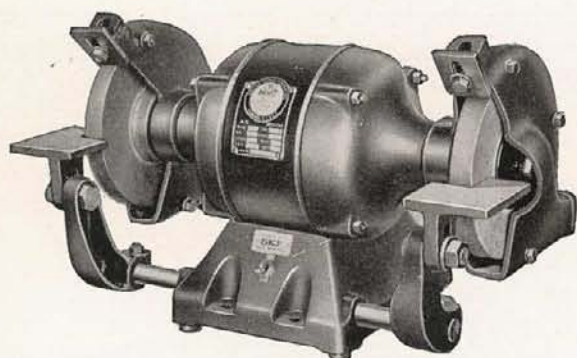
TWO VITRIFIED WHEELS (one fine grit, one coarse grit, both 10" diameter by 1" face x $\frac{3}{4}$ " bore) are supplied as standard equipment.

EXTRA EQUIPMENT AVAILABLE

GR100-A EYE SHIELDS, available as extra equipment, are of the approved type of shatter-proof glass. A light is built into the frame of the eye shield and so mounted as to illuminate the work without causing glare on the glass.

No. GR101 BASE or pedestal, available as extra equipment, is of heavy cast-iron. The top provides a convenient tray for tools or work, as well as a receptacle for holding cooling water.

(Note)—No. GR100 Grinders are available in three phase current only.
SPEEDS: 1725 RPM with 60 cycle motor;
1500 RPM with 50 cycle motor.



$\frac{1}{3}$ H.P. GRINDER

GR 35-E—This grinder has tool rests adjustable two ways, guards which have covers on the outside of the wheels, a sturdy 10 ampere switch located in the base. Wheels are 6" in diameter, $\frac{3}{4}$ " wide, $\frac{1}{2}$ " hole. A 10' cord, plug, and eye shields are supplied.



GR100—1 H.P. Grinder, as shown, less eye Shields and base

GR100A—Shatterproof shieldsPair

GR101—Cast-iron base

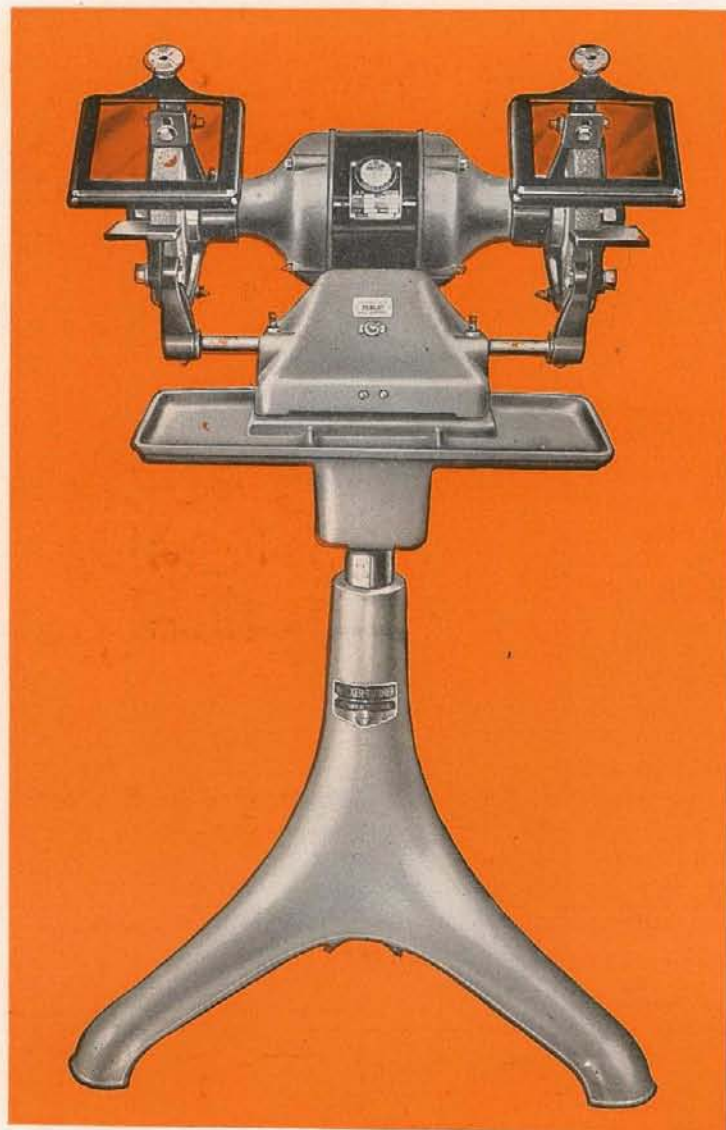
TURNER



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INDUSTRY

W-T 1/2 H.P. MOTOR GRINDERS



GR50-E—1/2 H.P. Grinder (110 volts, 60 cycle, A.C.) as shown above (without stand).

CG50-E—Combination Grinder and Disc Sander as shown at right.

GMP5—PEDESTAL STAND FOR ALL MODELS—Table and tripod stand are of cast iron. Table is 18" x 14" with cooling cup located at front center. Tool tray provided on either side of cooling cup. Table top is drilled to take grinders shown on this page only. Ground steel column, 2" in dia., connects table with stand. Adjustable 12" up or down. Shipping weight 70 lbs.

Also available as follows: 50 cycle, 110 volts, Extra; 50 cycle, 220 volts, three phase, Extra; 60 cycle, 220 to 250 volts, single phase, Extra; 115, 230 or 250 volts, D.C. Extra. Switch not supplied with three phase. Three phase 220 volts, 60 cycle no extra.

All grinders have extended end bells except the 1/2 Horse Power model, GR-3.

Motors are totally enclosed with special shaft seals to prevent abrasive dust damaging vital parts

Precision, dust sealed ball bearings are standard equipment on all models.

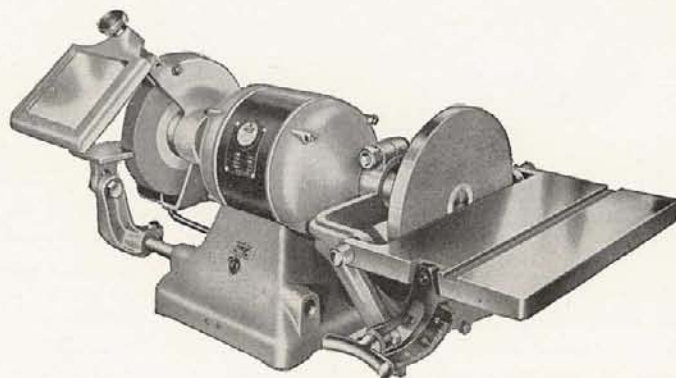
A ground wire is furnished on all models except the three phase.

The guards are easily removed for buffing operations. All models fit the pedestal base, GMP5, which is adjustable for height. Height—21" to 32".

Operating speed of all standard models is 3450 R.P.M.

1/2 H.P. CAPACITOR TYPE GRINDER—This grinder GR50 with its capacitor type motor and ample overload capacity will deliver years of steady, consistent service. The wheels are 7" in diameter, 1" wide, 5/8" hole. Full protection guards designed according to latest safety code requirements; large, non-shatterable glass shields; adjustable tool rests and cooling cup. A highgrade snap switch is built into the base.

COMBINATION GRINDER AND DISC SANDER—This combination model CG50 has the same features as specified above for the GR50 except that the disc sander attachment is substituted for one wheel and guard. CG50 will prove an invaluable aid in any shop where there are small parts to be ground and surface . . . a workman can do several different operations on a single piece without leaving the machine. Available for right side only. (The disc sander attachment will not fit model GR50.)



MACHINE TOOLS WALKER-

• W-T GEARED MOTORS •

Motors develop 225% of full load torque for short periods, without harm to motor, and will run continuously at full load without exceeding 40° C. temperature rise.

Precision shaved metal gears and heavy duty pre-loaded ball bearings insure smooth running and long life of motor. 2 and 3 H.P. motors have double row ball bearings on front of spindles.

Magnetic circuit breaker switch will be supplied upon request.

Rotor of copper bar construction with copper end rings brazed with silver alloy.

A most rigid test for fractional and integral horsepower motors is powering relatively small circular saws. Larger machines may be overpowered to a point where motor load is not so severe, but smaller saws, because of portability, must employ motors operating almost constantly under full load. W-T engineers, knowing ordinary motors could not be expected to give satisfactory results, developed the geared motor. Eliminating belt and pulleys was the greatest step, for with gears transmission, efficiency of 97-98% was obtained, whereas with belt drive, losses in transmission often ran as high as 40%. This power saving was put to work at the tooth of the saw.

Our engineers through constant research have developed W-T motors to a high operating efficiency and compact design.

MBS5 Circuit breaker for single phase motors of 2 H.P. or less. Specify size and type of motor

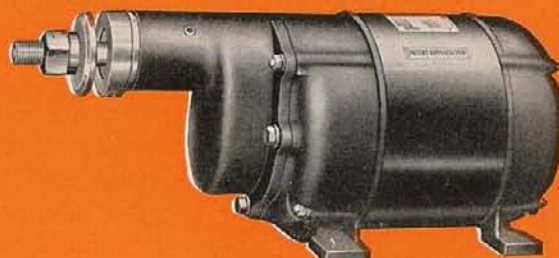
5062 C. B. switch for 1½ and 3 H.P. 3 phase, 220 volt

5064 C. B. switch for 1½ and 3 H.P. 440 volts

F927 Hi-Lo High Quality grease for geared motors.



2 and 3 HORSEPOWER



½, ¾, 1 and 1½ HORSEPOWER

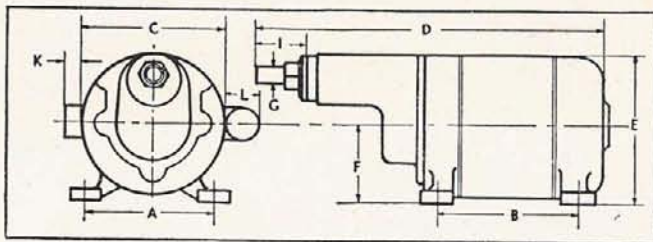
CAPACITOR AND 3 PHASE GEARED MOTORS

(dimensions in inches)

△ 3-Phase only.

Voltages other than 220 or 440, 5% extra. Not available for Direct Current or for 25 and 40 cycles.

(Dimensions L = 2¼")



Cat No.	Price	Key	H.P.	Volts	RPM	Frame No.	A	B	C	D	E	F	G	I	K	Wgt.
GIB-5			½	110-220	716	118	5¼	5⅜	6	15	7¾	3⅜	⅝	1	1	66
GIB-7		△	¾	220	716	120	5¼	5⅜	6	15	7¾	3⅜	⅝	1	1	70
GB-12			1	110-220	3450	120	5¼	5⅜	6⅞	15⅞	6⅞	3⅜	¾	2½	1⅜	80
GB-15		△	1½	220	3450	120	5¼	5⅜	6⅞	15⅞	6⅞	3⅜	¾	2½	1⅜	80
GB-20			2	220	3000	127-B	5¾	5¾	8	20¾	8¾	4¾	¾	2½	—	140
GB-30		△	3	220	3000	127-B	5¾	5¾	8	20¾	8¾	4¾	¾	2½	—	165

TURNER



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WALKER-TURNER



Motors in the standard frame group include $\frac{1}{8}$ to 1 H.P. Capacitor type, and $\frac{1}{8}$ to 1 H.P. three phase. All motors are designed and built to Walker-Turner specifications, and cannot be obtained under any other brand name.

Highly efficient, cool running. Temperature rise not to exceed 40° under full load conditions (unless otherwise noted).

Every motor guaranteed to develop $2\frac{1}{2}$ to 3 times its horse power rating for intermittent periods.

Motor feet cast integral with end bells. Machined on bottom for uniform height and alignment.

End bells diamond-bored for bearings. Selected precision ball bearings used throughout unless otherwise noted.

All rotors are of copper bar construction. Copper end rings are brazed with silver alloy (not soldered).

Capacitor start motors wound for 110 and 220 volts.

SERVICE REQUIREMENTS of motors used with portable and semi-portable machine tools are unusually severe. These motors must be rugged, compact and free from excess weight yet they must be able to stand up under severe and continuous overloading.

Because in the past the chief limiting factor in the development of better and more efficient machine tools has been the motor, Walker-Turner engineers have worked consistently toward the development of a highly efficient compact motor—one that would develop maximum power for the weight of material employed.

MOTORS USED with W-T tools are not general purpose motors but are designed and built expressly for the powering of Walker-Turner machines. By building a motor expressly for the machine on which it is to be used, we have been able to get a much higher over-all efficiency and utility.

Starting with a correct basic design, Walker-Turner motors have been constantly improved and every advantage taken of new methods and materials. By the use of new heat resisting insulation, silver brazed copper rotors, welded connections throughout, a highly efficient ventilating system, and ball bearings which carry sufficient lubrication for months of constant service. Walker-Turner motors will not only develop $2\frac{1}{2}$ to 3 times their rated H.P. for intermittent periods but will operate continuously under full load conditions with a minimum of care and attention.

Selection of Motors: As stated above, Walker-Turner motors are designed for the machines but quite frequently the kind of current available will influence the selection of the motor to be used. Almost without exception, the best type of motor for any machine is a poly-phase (two or three phase) motor. But where two or three-phase current is not always to be had, capacitor type single phase motors are available.

★ ★ ★ MACHINE

TOOLS
WALKER-

CUSTOM BUILT MOTORS

POLY-PHASE MOTORS

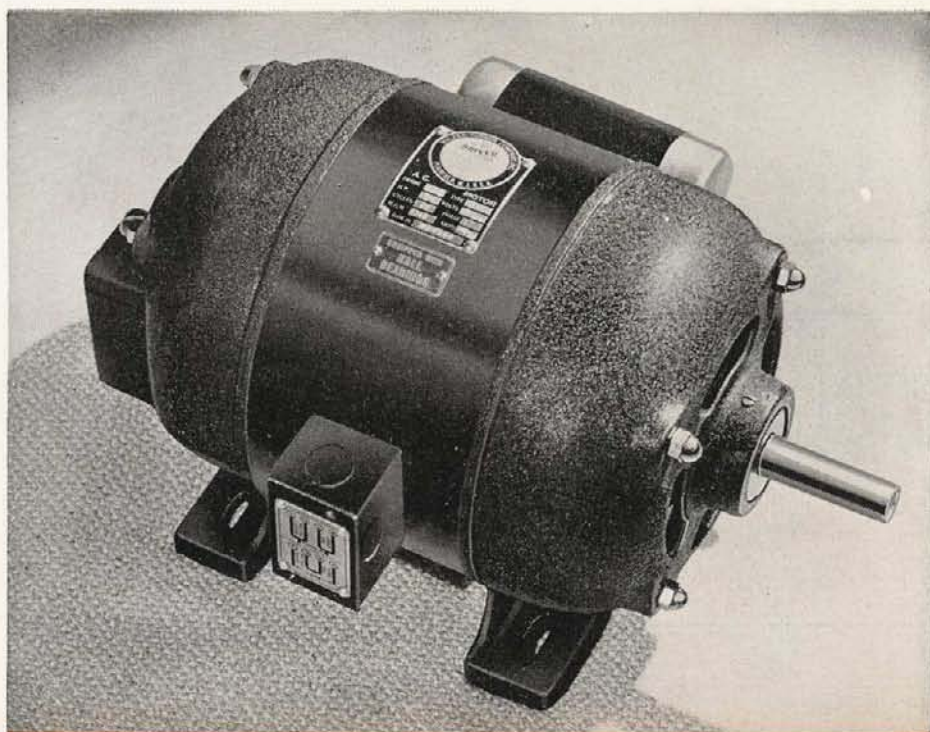
Motors from this group should be used where two or three-phase current is available because of their outstanding efficiency, high torque and quiet operation. They will handle all hard starting loads, regain speed quickly after loading and are exceptionally cool running. Standard motors are 220 volts, three-phase: two-phase and odd voltage and frequency are available on special order. H.P. sizes range from $\frac{1}{3}$ to 3 H.P.

CAPACITOR START MOTORS

These single phase motors should be used for hard starting applications and for use where overloading is apt to be constant. They have more than 300% full load starting torque and will continue to perform under extremely hard use. Circular saws, jointers and band saws will operate at top efficiency when operated with this type motor. The open type fan ventilated construction assures cool operation under all conditions.

On capacitor motors direction of rotation may be changed in the terminal box. Made for operation on 110 or 220 volts at 60 cycles: other voltage and cycles obtainable on special order. H.P. sizes from $\frac{1}{3}$ to 2 H.P.

No. 14 10' Extension cord & plug



NEW LARGER FRAME SIZE MOTORS

Motors in the large frame group include the $1\frac{1}{2}$ and 2 H.P. Capacitor Type and the slow speed and dual $\frac{3}{4}$ H.P. 3 phase, the $1\frac{1}{2}$ and 2 H.P. 3 phase motors. Proportionately larger and heavier, they will not fit standard machine motor base without the use of NB23A Adapters.



Attached to Drill Press—
(above) The remote control switch can quickly be attached to drill press heads as illustrated above, or it can be mounted on the bench if preferred.



T55 — Remote control switch with 30" of rubber covered cord. May be used on any make of single phase of motor up to 1 H.P. 220 volts.



Location for Lathe—
Installed on the lathe in front of the bed, the remote control switch affords great convenience to the operator.

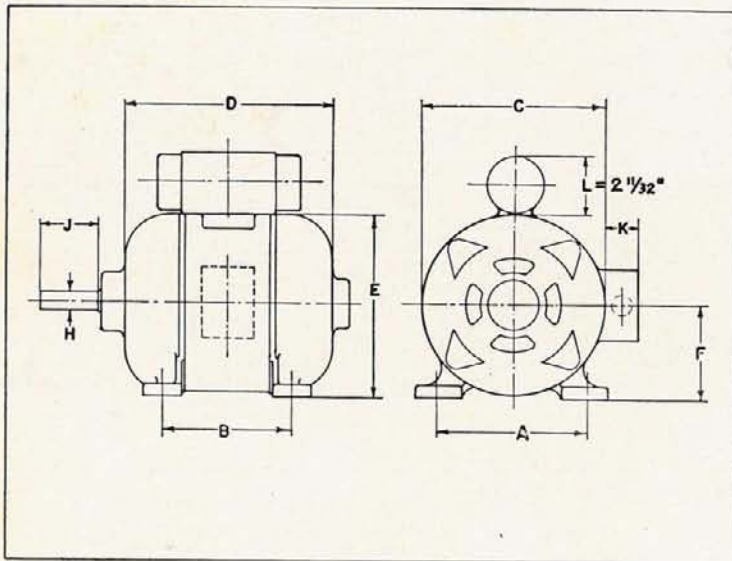
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WALKER-TURNER MOTOR DATA



Factors to be considered in the selection of motors for power tool equipment are the electric current available, type of service, and initial cost. Three-phase motors are superior to all other types and their use is recommended wherever three-phase power is available.

Next, from the standpoint of service, comes the capacitor-start motor, which has a high starting and running torque, low starting current, and is suitable for all types of power drives.

THREE-PHASE MOTORS (60 CYCLES)

(Dimensions in Inches)

Cat. No.	Price	H.P.	Volts	RPM	Frame No.	A	B	C	D	E	F	H	J	K	Width	Length	Wgt.	Key to Footnotes
PAB3-E		1/3	220	1740	115-E	5 5/16	4 7/16	6 11/16	6 29/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	28	△ ¶
PAB5-E		1/2	220	1740	118-E	5 5/16	5 3/16	6 11/16	7 21/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	40	△
PEB5-E		1/2	220	3450	118-E	5 5/16	5 3/16	6 11/16	7 21/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	40	△
POB5-E		1/2	220	1140	120-E	5 5/16	5 11/16	6 11/16	8 5/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	62	△ ⊙
PAB10-E	1		220-440	1740	125-B	6 1/2	6 1/2	8 1/4	10 7/8	8 3/8	4 1/4	3/4	2 1/4	1 3/8	3/16	1 1/2	75	¶ *
PEB10-E	1		220	3450	120-E	5 5/16	5 11/16	6 11/16	8 5/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	62	△ *
POB10-E	1		220-440	1140	125-B	6 1/2	6 1/2	8 1/4	10 7/8	8 3/8	4 1/4	3/4	2 1/4	1 3/8	3/16	1 1/2	75	⊙ *
PEB15-E	1 1/2		220	3450	120-E	5 5/16	5 11/16	6 11/16	8 5/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	75	△
PIB7-S	3/4		220	865	P.R. 204	8	6 1/2	8 1/2	9	8 7/8	4 1/2	3/4	2 1/2	1 3/4	3/16	2 1/8	76	⊙ △

CAPACITOR START MOTORS (60 CYCLES, SINGLE PHASE)

KAB3-E	1/3	110-220	1740	116-E	5 5/16	4 1/16	6 11/16	7 5/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	29	□
KEB5-E	1/2	110-220	3450	118-E	5 5/16	5 5/16	6 11/16	7 21/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	40	□
KAB5-E	1/2	110-220	1740	118-E	5 5/16	5 5/16	6 11/16	7 21/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	40	□
KAB10-E	1	110-220	1740	125-A	6 1/2	6 1/2	8 1/4	10 7/8	8 3/8	4 1/4	3/4	2 1/4	1 3/8	3/16	1 1/2	75	□
KEB10-E	1	110-220	3450	120-E	5 5/16	5 11/16	6 11/16	8 3/32	6 23/32	3 3/8	5/8	1 7/8	1 3/8	3/16	1 1/4	62	□

All motors excepting 3-phase can be supplied in 50 cycles, 5% extra.

Three-phase motors except PIB7-S, POB5-E and POB10-E can be supplied for 50 cycles, no extra. Voltages other than 220, or 440, 5% extra.

25 to 40 cycles not available except as shown in chart.

No switch, cord or plug furnished with motors.

△ 3-phase motors with three-wires in outlet box.

○ Not furnished for 50 cycles.

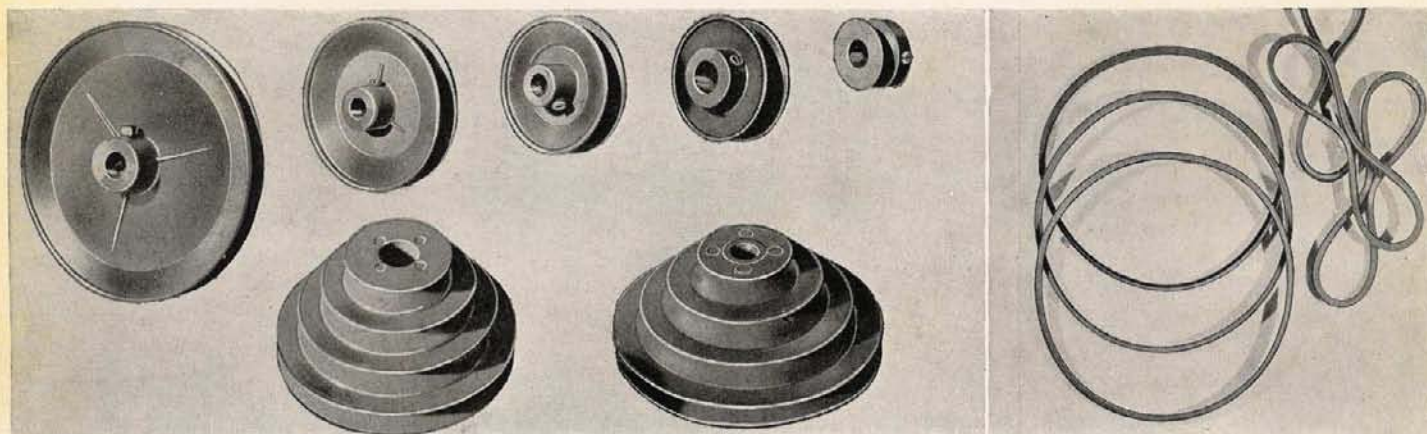
¶ Can be supplied for 25 cycles on special order.

* 3-Phase motors with nine wires in outlet box.

□ Reversible in outlet box.

ALL MOTORS HAVE SINGLE SHAFT EXTENSION

TRANSMISSION EQUIPMENT



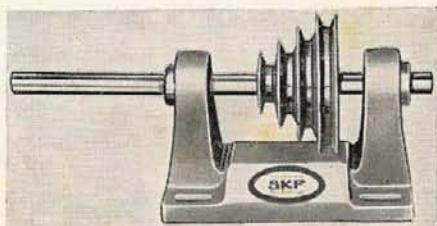
WIDE SELECTION OF PULLEYS—Walker-Turner pulleys are available in various diameters and bores to fit practically every need. Each pulley has two set screws for maximum holding power. Pitch of all pulley grooves is 43°.

1/2" BORE				5/8" BORE				3/4" BORE			
No.	Price	Inch Size of Steps		No.	Price	Inch Size of Steps		No.	Price	Inch Size of Steps	
PV175		1 3/4		PV158		1 3/4		PV275		2 1/2	
PV25		2 1/2		PV258		2 1/2		PV375		3	
PV350		3		PV365		3		PV475		4	
PV450		4		PV458		4		BN18		6 1/2	
PV65		6 1/2		PV658		6 1/2		PV37		3 1/4	2 1/2 1 1/4
PV30		3 1/4	2 1/2 1 1/4	PV35		3 1/4	2 1/2 1 1/4	PV47		3 1/4	2 3/4 2 1/4 1 3/4
PV34		1 3/4	1 3/4 1 3/4 1 3/4	PV45		3 1/4	2 3/4 2 1/4 1 3/4	PV49		4 3/4	4 1/4 3 3/4 3 1/4
PV41		3 1/4	2 3/4 2 1/4 1 3/4	PV48		4 3/4	4 1/4 3 3/4 3 1/4	PV40		4	3 1/4 2 1/2 1 3/4
PV43		4 3/4	4 1/4 3 3/4 3 1/4	PV625		4	3 1/4 2 1/2 1 3/4	PV575		5	3 7/8 2 1/8 1 3/4
PV4		4	3 1/4 2 1/2 1 3/4	PV58		5	3 7/8 2 1/8 1 3/4	PV750		5 1/2	4 3/8 3 1/8 2 1/4
PV550		5	3 7/8 2 1/8 1 3/4	PV62		5 1/2	4 3/8 3 1/8 2 1/4				
PV500		5 1/2	4 3/8 3 1/8 2 1/4								

V-BELT LISTING

VB20—20"	VB42—42"
VB24—24"	VB44—44"
VB26—26"	VB48—48"
3270—27"	VB54—54"
VB29—29"	VB58—58"
5332—30"	3600—60"
3310—31"	VB62—62"
VB32—32"	VB66—66"
VB34—34"	VB86—86"
VB36—36"	VB92—92"
VB39—39"	

3VB16—Texrope Belts. Set of three matched.
V-Belts



JACKSHAFT ASSEMBLY—This unit can be used for increasing or reducing machine speeds. The shaft turns on precision ball-bearings. Base holes are located identically with most W-T motor mountings. Four variations of speeds are provided.

MD18—Jackshaft assembly as shown..



WORK ARBOR—
No. 2 Motor Work
Arbor (with 1/2"
chuck)

A large black circle is positioned on the right side of the cover, partially overlapping the orange background. In the center of the cover is a smaller black circle. Overlapping this central circle are two vertical orange bars of unequal height. The word "walker-Turner" is printed in a bold, sans-serif font across the center. "walker-" is in orange and "Turner" is in black, with the orange bars passing through the letters.

**walker-
Turner**

**COMPANY, Inc.
PLAINFIELD, N.J.
U.S.A.**

CATALOG No. G-3-3

SOLD ONLY BY AUTHORIZED DEALERS